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THE
Gentleman's Complete Jockey:

With the

PERFECT HORSEMAN,

AND

EXPERIENCED FARRIER,

CONTAINING,

- I. The Nature of Horses; their Breeding, Feeding and Management in all Paces, to fit them for War, Racing, Travel, Hunting, or other Recreations and Advantages.
- II. The true Method, with proper Rules and Directions to Order, Diet and Physic the Running Horse, to bring him to any Match or Race, with success.
- III. The Methods to buy Horses, and prevent being cheated; noting the particular Marks of the good and bad horses, in all their circumstances.
- IV. How to make Blazes, Stars, and Snips: To fatten a horse with little charge, and to make him lively and lovely.
- V. The whole Art of a FARRIER in curing all Diseases, Grievances and Sorrows incident to Horses; with their Symptoms and Causes.
- VI. The methods of Shoeing, Bleeding, Rowling, Purging, and prevention of Diseases, &c. from long Experience and approved Practice.

To which is added,

The ART of VERMINE-KILLING.

By A. S. Gent. K

L O N D O N:

PRINTED IN THE YEAR, M,DCC,LXXXII.



T H E

P R E F A C E.

READER,

I Here present you with a laboured work, containing all that is excellent to be known relating to Horses and Mares, &c. the most necessary and useful creature to man, in peace and war: enriching with their labours, and pleasing in their more nicer industry and management; and consequently, their well-breeding and instructions, as to what they are capable, is necessary to be known; therefore I have laid it down in such an easy, though perfect method, that the meanest capacity may soon understand it, and the largest find subject matter enough to busy itself.

That these creatures have been highly esteemed in all ages, and their understanding very great, histories makes frequent mention, so that their preservation was had in much regard; and Hypocrates, and other eminent Physicians, study'd it next to man's, laying down rules and methods to discover and cure the diseases incident to them. And this example I have also followed, that so generous a creature may at no time be lost for want of suitable remedies in any matter that may befall him. The station it has pleased God to put me in, has led me to experience in this creature; and I have found many

things concerning them, to which, as far as I can perceive, the ancients were strangers; I have put them into a suitable method, and inserted them in this book, besides what are taken from the works of the most expert managers and farriers that have ever been public. So that I may, without straining a point of modesty, truly say, it not only answers, but much exceeds what is promised in the title-page, and is the best of its kind that has hitherto been abroad in the world. To prove this, I could insert many particulars; but they being plainly to be seen in reading the following pages, and brevity, as I conceive, always most commendable in a preface, I draw to a conclusion.

As well knowing, that when all I can say is said, I must leave it to the censure of the reader, and therefore will only desire one favour, (which no reasonable man will refuse,) and that is, not to pass sentence before you read and put in practice so much of it as shall be suitable to your occasion. And so not fearing its coming to the touch-stone, to prove its real worth and value, I remain,

Your friend and servant,

to oblige you, in what I may,

A. S.



T H E

Gentleman's Complete Jockey :

With the

PERFECT HORSEMAN AND FARRIER.

Of the natures and properties of Horses.

HORSES, of all the unreasonable creatures upon the earth, are of the greatest understanding, having in them (as the learned affirm) a certain natural instinct, not only of the knowledge of their riders and keepers, but also of their own generation and descent, knowing their sires and dams, in such manner as they will refuse, as Pliny says, to couple or ingender with them. They are also creatures the aptest to learn any motion, and the readiest to obey their teacher, having a greater love to exercise than any other beast. They are of infinite great courage, taking an exceeding delight in the wars; and, as some do affirm, have a certain foreknowledge of the battle, and will prepare themselves for the same. They will mourn for the loss or deaths of their masters, and are so apt to indure labour, that it is written of the horses of the Samarans, That they

will gallop one hundred miles end-ways without rest or stay. They are naturally long-lived, and by choice keepers have been brought up to fifty years, but for ordinary live to thirty. The mares are shorter lived, surviving till twenty, or twenty-five at the farthest. They are of all beasts the most beautiful of shape. They are fit for the saddle at four years of age, for the wars at six, for the race at eight, for hunting and extreme matches at ten or eleven. The female bear their foal full eleven months, and foal it in the twelfth. The best time for their ingendering is in March, at the increase of the moon, or in any part of it. They are supposed to be so loving and kind to their generation, that if a foal lose its dame, the other mares which are with milk, will, of their own accord, lend the teats to feed, and nurse up the orphan foal. Horses are subject to more diseases than any other beasts; some write three hundred, or as many as belong to man.

The means to make the seed of the horse perfect for generation.

The seed of the horse ought to be hot and dry, so that all excessive moisture of seed must be abated and taken away. Now the means to make hot and dry seed for generation, is labour and spare diet, the digestion being

made perfect through heat proceeding from labour, so that the meat that the horse and mare should feed upon, should be in quality of nature hot and dry, and then moderately taken. The seed doth naturally partake of the quality and temperature of the meat; his meat will increase an uniform seed; so that the colt will be like unto the sire. The meat should be old sweet hay or wheat-straw, moderately given them; sweet oats winnowed and cleansed from the dust and filth, mingled with old dried pease or beans, with a scattering of bay-salt or anniseed; the provender, for their better digestion may be given them three times a-day; their water sweet and pure; and every day, early in the morning, when they are fasting, moderately exercised until they sweat, the stable cleaned, and then painfully dressed and rubbed dry, and thoroughly cold before any meat be given them; the which doth not only perfect digestion, and exhaust the moisture from the feed, but also strengtheneth and cleanseth their blood and bodies from all raw and imperfect humours, whereby you shall perceive them to exceed in pride and lust. About eight or ten days before they come to action; add to their diet some sweet wheat equal in mixture and quantity with the rest of their provender; for wheat is a great comforter to the heart, and an increase of the vital spirits,

which above all things for that action is principally to be moved and stirred up; sometimes put in a pint of white-wine, or a bottle of ale, to abate the cold quality of their water. These means being rightly used, you will plainly discern the endowment of a good temperature, to possess a sufficient power to shape a perfect body; which some of the gentry would give any rate for.

Observations for the better directions in breeding of the mare.

There must be a great discretion used in feeding of the mare, until she hath foaled, lest by the long use of over-bad meats the colt in the womb be impaired from that quality and temperature it had from the seed; therefore the mare may not so far eat of contrary meats, lest the colt lose of those good qualities, which is received, as hath been said, of the seed whereof it was made.

Of what age the horse or mare ought to be that beget and bring forth.

Observe every horse until he be six years old is a colt, but never after, and that is his first age, and if after that time he lose any of his teeth they come not again, because the excess of his moisture doth then begin to a-

bate, being until then predominate in moisture ; and from five years of age until he be ten is counted his middle, youthful and perfect age, for his vigour, spirit and action, because he is then more hot, and less moist ; and from ten years of age to fifteen is his declining, because then heat and moisture do much decay ; and from fifteen years of age until twenty his old age, because then he is cold and dry. The best time for their ingendering is March, at the increase of the moon, or in part of it ; the mare carrieth (as hath been said) her foal eleven months, and foaleth standing in the twelfth.

To know whether a mare hath conceived, and how to order her after time of conception, until the time of foaling, for the better breeding and nourishment of the colt.

If she cast not her seed, but eateth freshly when she come to meat, and so continueth, and doth not neigh nor piss often, neither casteth her eye gazing after a horse, and within a day or two begin to be gaunt-bellied, because her womb in conception, and closing itself together in keeping the seed, trusteth up and maketh it show less to the sight than before, as if she were suddenly become lean, and her hair lieth very smooth, and brighter than before ; as also about ten days

after, offering her a horse, two or three days before the full, and likewise before the new moon, (and she abhoreth copulation) it assureth that her nature is satisfied, and are manifest signs of her conception: And as touching her keeping, let her not drink so much as nature desireth, and still keep her with the same meat and diet for twelve days after. Presently after her foaling, milk the mare as clean as you can, which will not only draw down her milk, but make the same increase, and also keep the udder in a good temper, that the milk do not clod, which if it should, the mare will quickly become dry. Boil her milk with the tops of lavender, bathe all her udder therewith, and so continue till the clods and knobs in the udder be dissolved. After foaling, give her a good mash made of malt, or wheat-meal; let the stable be open and airy, and the floor paved and not planked; in the provender you may also put the powder of brimstone, and the powder of the roots of enual compana, of white-lilly roots, of polipodium of the oak, of savin, marsh-wormwood, tobacco, garlic chopped small, and such like, and when she goes to grass, let her run no longer than Bartholomew-tide.

Of taming of Colts.

The yearly wintering colts in the stable will make them tame and domestical, as also bring many other benefits both to the owner and the colts, until they come to be ridden, which should not be until five years of age, if you would have them strong, sound and durable colts. When the colt is made gentle, to suffer the saddle and crupper to be set on his back, shoes on his feet, and also lead to water, then take another gentle horse, and ride upon him, leading the colt in a halter; cross-gird your colt, and ride him a mile or two, and make much of your colt, and with this gentle usage the colt will love and desire your company; and oftentimes, when you are in the stable with him, cause some drum to beat, or gun to play or shoot to harden him, at which time stand by and cherish him.

Of making of colts to amble, from the time of their foaling.

Put on a halter, bridle, and saddle, at your pleasure, on the mare's head in the morning, lead her forth, let the colt follow gentle, as soft a pace as she can go, into some even, plain, and hard ground, and be sure that the colt be not inforced to go faster

than you lead the mare; then observe, and you shall find the colt going by her, that he doth altogether go and strain his legs in an amble; after you have practised several times, the colt will increase in the swiftness of the pace of his amble, and then, when you think fit, you may back him.

Of the stable.

First, For the situation of the stable, it should be on a dry ground, so as all the seasons of the year both man and horse may come and return from the same clean and dry; also it should be builded and so placed that there be a continual current for cleansing and keeping the same sweet from all things that are noisom. It should be ceiled over the horses, to keep both horse, rack, meat and manger from all dust; it must not have any filthy gutter or sink near, in, or under the same, neither any privy, nor any other unwholesome favour of hog-sties, hen-houses, or such like. Some antient writers affirm, that the strong air of a privy will make a horse blind; the horse is naturally a proud beast, and delighteth in cleanness; the rack should be set high and stooping, that no dust or filth may annoy the horses eyes or main, or endanger his crest, by crooked or wry feeding; the manger should be deep and strong, for

casting provender out of it with the horse's nose, with posts and partitions, as you may see in all well-ordered stables: the floor should be paved and not planked for these reasons. First, it is more durable and lasting, and less charge, it maketh your horse more bold upon stony and hard grounds, as also it is an excellent conveniency for colts, being unshoed, for it hardneth the hoof so as by continuance and custom, and they will be as bold on the stones as if they were shoed. The pavement should be even, not higher before, where the fore-feet stand, for it will prove painful to the hinder legs, so as the horse, unless necessity compel him, cannot stand strait to be bold in the stable. There should be divers windows, the which should be so placed, that the stable be therewith cleared with the air, and to be close shut, or opened as occasion shall serve, in the night-time, especially in the winter; at other times it should be kept something cold, for the horse will feed and digest the better. There should not be any dust or loam-walls about or near the rack or manger, for the horse will naturally lick them, to his great hurt. The dung must not by any means lye close to the stable. The groom's should be lodged near to the stable, to be ready at all times, and upon all occasions; and joining to their lodging should be a convenient room, with a press

therein to set their saddles, bridles, girts, and such like, with all kind of necessary instruments, to mend such furniture, and all things necessary for shoeing, letting of blood, and such like, together with medicinable things, either for inward diseases or outward hurts. There should also to the stable be annexed certain sheds, or rooms to lay horse-litter in, both new and old, for it is most unfit for the litter to be under the manger, as commonly is used, lest the horse should either feed on it, or be offended with the savour. Besides, there should be a little inclosed room, such as horses, after their labours, might be put into, to wallow themselves, wherein most horses take exceeding delight, it being also most healthful for them so to do, the which the antient writers affirm, doth so much comfort a horse, that if they be tired, having afterwards wallowed himself, and being clean rubbed, will couragiously travel presently again; there should also be places or sheds for the horses to be cleansed, curry'd and trimm'd in; neither would I have any horse having the glaunders, or any other sickness, hurt or disease, to remain in the stable at such a time, but kept in a shed for the present from the rest of the horses; by which means, and all other good diet, there cannot be any great doubt of health and long life to the horses.

Of shoeing of horses.

If the true knowledge of hoofs were rightly understood, then shoeing could not be difficult. First, I will set down what is a perfect hoof, it must be lean, smooth, deep, rough, narrow towards the toe, and conveniently broad in the heels, much like an afs's hoof, for it should be round. A hoof that wants the deepness of the coffin cannot be of long service; and because all the weight of the horse resteth upon the quarters and heels of the fore-feet, therefore those quarters, I mean the edge of the coffin on the hinder part of the fore-feet, must be maintained and taken off as little as may be, for thereby the horse treadeth and beareth equally, which is a special means to keep him from interfering behind. Therefore the farrier must to his utmost preserve the hinder quarters of the fore-feet, taking little or nothing away from the edge of the coffin, because, as we said, all the weight and burden of the horse resteth upon the quarters and heels of the fore-feet, which few farriers little think upon; but the toes of the fore-feet being naturally thick and hard, must by them be always abated and pared thin as the edge of a knife, whereby they make the hoofs of the fore-feet to be low before, and high in

the quarters. Therefore when they do pare the coffins of the fore-feet, let them do it so easy and plain, as the eye can discern, that the shoe laid upon the coffin may seem to be glued thereunto, so that you cannot see the light betwixt the shoe and the coffin in any part, otherwise the shoe is not well turned or welded, or the hoof truly pared; but before it be nailed, be sure to mend the fault, that so it may bear even and just upon the edge of the coffin; then before you let the farrier set on the shoe, in both the quarters of the coffin of every foot next to the frush, let him cut out of the end of the corner of the coffin, as near to the quick of the heels as may be, as much of the coffin as you may lay your finger in it, whereby it shall never gather too near the frush, to close up, and become narrow in the heels, so as when the horse is shod, you shall have a very good distance between the broad end of the frush and the sponge of the shoe, whereby all gravel and stones will wash and work out of the sponge of the shoe, being cut aslope; that when the shoe is tacked on with nails, set down the horse's foot, and stand directly behind the horse, and view whether the frush of the foot be direct and of just proportion, even betwixt the webs of the shoes, and whether the horse stands right, and the frush equally betwixt the webs or sponges of the shoe, and you shall be assured

thereby that the shoe standeth right, the continual use whereof will cause the horse to tread and traverse boldly and surely, because his quarters being the bearing place, will be broad and even to support the whole body. And for the true making of the shoe, all the web should be stait and plain, not drawn in at the heels, and quarter narrow, or beaten to the heels, which many use to do, neither hollowed, if the feet be perfect, but even and flat, with a broad web, and the sponges thicker and more substantial than any part of the shoe, to cause the joint to stand upright, and so wide in the quarters, as both sides may disbord the coffin of the hoof, the breadth of a straw, to guard and save the coffin of the hoof, being the only strength of the whole foot, and also the shoe set so far back to guard the heels, as may save the same from bruising and cutting with stones, and unless the coffin be continually so kept open from hard oppression, and closing of the tuel of the foot, which is inclosed within the coffin, whereby the tuel becometh bound to the great grief and lameness of the horse, but the foot and joint of the horse maintained as a principal post to support the whole building, for otherwise the horse will become hoof-bound, which many ignorantly call dry foundred, and also make the joint to become weak, lame, and full of wind-galls. And

therefore when he comes to the piercing of the shoe of the fore-foot, let him not spare to pierce it from the quarter to the hard toe, but not backward to the heel, and let the shoe be so pierced, as the holes be much wider on the outside of the shoe than within, for the holes of the inside of the shoe should be no wider than the shank of the nail may well fit, otherwise the shoe will never sit fast and steady, and the circle of the piercing more distant from the edge of the toe than from the edge of the quarter, because every smith knoweth that there is more hold to be taken with less danger, in respect of the tuel and quick of the foot, and all the nails would be untold without shoulders, which will so sink, and strongly fill the hole, as that the shoe will be well fixed, and by cutting the hoof a little with the point of a knife, let the clench be clean hid, the which shoeing should be always done eight or ten days before you travel your horse, for by that time the hoof will be grown to the nails to hold the shoe fast. And for the helping of interfering, you must keep him full of flesh, and always preserving the coffins on the inside of the hoofs, without paring away more than to make them even for the shoes, and abate the outside of the coffin of the same foot; and besides, make the sponges of the shoes on

the inside of the shoes much thicker than the outside.

How to know a horse that is durable, and of continuance in journey, &c.

This observation must also be from his shape, the others follow. First, It is to be considered that strength is the cause of the continuance of travel, they consider in what part of the body of the horse that strength principally and naturally resteth, for as the strength of the bull is naturally in the neck, of the lion and bear in the paws, of the dog in the chops, so of the horse in the fore-part, where nature hath imposed the burden, and there is and must be his principal force and strength, the which fore-part must be deep and broad from the point of his top or withers to the bottom of his chest or breast; his ribs bearing out as the lid or cover of a trunk, whereby he will appear as broad, full, round, and bearing out of the chest or breast, with an evenness of chest and belly to the flank, so as that his belly hang not deeper than his chest, nor his chest deeper than his belly, with lean, upright and strait pattern, somewhat narrow hoofed toward the toes; assure yourselves such a horse will be durable, and as good almost at the end of his labour as at the beginning; if he be of the contrary shape,

then will his actions be contrary, namely, the longer he is travelled the more jade.

How to keep a free and perfect spirited horse.

This powerful spirit proceeds from the vital spirit and arterial blood, that goes wandering through the whole body, to stir up the power of the beast, to give him force and vigour to work; and this spirit is of substance most pure, so when it is plentifully infused, it maketh and worketh all the creature, and quality of the same pure, so as man not knowing or finding the reason, cannot but wonder at the work and work-master. Wherefore, for the satisfaction and confirmation of this proposition, how to know a perfect, quick, and free-spirited horse? you must still retain all the description of shape before described, by all which description you shall assuredly know his qualities only upon the views, as if you had made trial of him many years; but if the horse be defective in his shape, as I have described, then assure yourself that he wanteth that natural perfection I have referred the rule unto. Observe then, I desire you, that a perfect horse by nature is thus shaped, viz. a lean slender head, broad forehead, great black eyes, full and plain over the lids, slender, thin, and lean jaws, broad, thin, long and high reared

neck, the head set to the neck as naturally as a ram's head when he fighteth high withers, and a deep broad chest or breast, his ribs of an equal evenness from his chest to his flank, lean upright pasterns, with a lean and deep hoof; such a horse, assure thyself, will be found in all his actions naturally bold, loving, easy, sure-footed, durable, and free-going. But because I know, and do assure myself, that *unus mens non est capax tanti motus*, that it is impossible one head should be so well furnished as to neglect the opinions of the antient writers? I have therefore annexed their description, humbly submitting myself to the censure of the experienced and learned.

Of the shape of a horse.

The last thing to know a good horse is his shape, which originally made by God, was no doubt excellent, for the works of God were all perfect. The particular observations and descriptions of the perfect shape of a horse are in number thirty-two, against which I question not but that there may be objections raised, which I will not trouble myself to answer, as being conscious that what I shall write of this subject, I have partly by experience, and partly received from the most approved authors. I will begin with the

hoof, and so ascend till the whole body be described.

First therefore, they say, That the hoof should be black, smooth, dry, large, round and hollow; some write, That if it be soft and tender, and the head broad, that it is a sign of lightness, and that the female will from her foaling tread light upon the ground, being afraid to trust the hoof being tender, and therefore straineth her legs and back the more.

2. That the hoofs should be small and heavy, answerable to the joint, that it should be hairy, his fetterlocks to be good, in that it also answereth his nature.

3. That his pasterns should be short, neither too low, nor too high, and therewithal strong beneath, not apt to founder, the strength of the pastern being the uprightness thereof.

4. That his joints ought to be great, with long fetter-locks behind; this greatness of his joints must also be answerable to the proportion of his body.

5. That his legs ought to be strait and broad.

6. That his knees should be great, lean and plain.

7. That his thighs should be full of sinews; the bones whereof to be short, equal, just and well proportioned; that when he standeth with his legs together, they should be more

distant one from another towards the breast than beneath, which proceeds from the fullness and breadth of the breast, which causeth that distance.

8. That his shoulders should be long, large, and full of flesh proportionable to his body.

9. That his breast should be large and round.

10. That his neck would be rather long than short, great towards the breast, bending in the midst, and slender towards the head.

11. That his ears should be small, sharp, and upright.

12. That his forehead should be lean and large, that largeness to be both of breadth and length, according to his natural proportion.

13. That his eyes should be great and black.

14. That the hollownes of his brows be well filled, and shooting outward.

15. That his jaws should be slender and lean.

16. That his nostrils should be open, and puffed up, that you may see the red within, apt for air.

17. That he ought to have a great mouth.

18. And what is strange, that his head should be like a sheep's head: I answer, That sheep's-heads being as other beasts, are

of divers shapes, it cannot be directly answered, for if I should conceive the shape thereof contrary to the writers meaning, I should wrong them, and therefore leave it, having already given my description as to my own knowledge; but if you take it according to the proportion of the most sheep, it is a good shape.

19. That the mane should be thin and long, which betokeneth strength, and the thinness, aptness to be taught.

20. That his withers and walleyes should be sharp pointed, right and strait, so that a man may see from thence the posture of his shoulders.

21. That his back should be short, even and plain.

22. That his sides should be long and large, with small space betwixt the hinder rib and huckle bone.

23. That his belly should be long and great, orderly hidden under his ribs.

24. That his flank should be full and not gaunt, with natural frizled hair on both sides, and the higher such hair mounts the better.

25. That his rump should be round and plain, with a large space betwixt the huckle-bones.

26. That his thighs should be large and long, with bones well proportioned and full of flesh.

27. That his hams should be lean, dry, and strait.

28. That his hoofs should be large and crooked like a heart, which should be a sign of swiftnefs.

29. That his tail be full of hairs, long, down to the ground ; or, as some write, lean and crisp.

30. That his truncheon should be of a measurable highness and well couched.

31. That his stones and yard should be small.

32. That he be proportioned like a stag, lower before than behind.

Of the Colour of Horses.

Now we proceed to examination of the certainty of the knowledge that might be taken from the horse's colour, which most men do so embrace ; my purpose is to name those which they call the best, viz. brown, bay, dappled, black full of silver hairs, black like the moor ; the roan, bright bay, dark bay, bright sorrel, flea-bitten, whitely eared, &c. The antient writers tells us that every horse is coloured as he is complexioned, and according to the complexion he is good or evil dispositioned, as he doth participate of the elements so he is complexioned ; affirming, that if he have most of the elements of fire, then he is cholerick, and therefore hot and

fiery, and of no great force, as the bright sorrel; but if of the element of water, then dull, slow, heavy, cold of nature, and such are most commonly milk-white; but if of the element of the air, then more full of blood, sanguine, pleasant, and of colour bay; but if of the earth, then melancholy, faint-hearted, sad and heavy; the colour of these are dark, dun, ruffet or black. The learned say, there are four complexions, as there are four elements. But horses do almost yearly alter their colour, the mare at the time of her foaling. Opianus says, that the colours of horses were chosen and maintained for the hunting of wild beasts; if a horse be of a brown bay, which the Frenchmen do call *Bayarie*, loyal trust *Baynard*, which they account to be the captain of all colours, if withal this brown bay have a white star, white foot, and such like, he is valued oftentimes more than he is thrice worth. Thus hath many ages taken that for a cause, which is no cause.

Of the horse's marks.

The Italian writers hath drawn particular names, from whom the people borrow their opinions, and therefore when a horse hath a white foot or a white mark, which the Italians calls *Belzoano*, if the white extend high and large (they say) it pretendeth debility,

because whiteness betokeneth weakness, dullness, and the like, and they call *Balzani*; and they tell us of Culzoti, Atregio, Travano, Trustravato, Rapicano, Attufuato, Guzze, Zunio, &c. And sure I am, that neither with foot, white star, white list, stroke, snip, phillet in the forehead, white rump, black and red fleabiting, ostrich feather, where it cannot be seen, meal nose, meal flank, bearded under his chops like a goat, black and long fetterlocks, long main, black tail, black list, and such like, are not to be depended on as the assurance of a good horse, for undoubtedly you shall find good and bad of all colours; but to overcome custom is a hard fight.

How to know a horse that is bold by nature.

A horse that is fearful by nature, may by compulsory means, after long use, make little or no shew of fear, as being in a ship upon sea, where are trumpets, guns, and the like, not having means to avoid the same, by use and continuance thereof, seemeth not fearful. But the physiognomy of a horse is much more certain, for he cannot keep secret or conceal as man can, but being in perfect health remaineth every one and the same in countenance. To conclude, and make the truth hereof appear, chuse a horse with a

broad forehead, a great black full eye standing out like a hare's, and a high reared forepart, and be assured that by nature he is bold; and to give you a farther assurance, mark a horse with a narrow forehead, little eyes, and low forepart, which is meerly contrary, and assure yourself by nature, that he is starting and fearful, and to seal up the truth thereof, the trial will confirm you.

How to make a white star, or a white spot in a horse's face or in any other place.

Take two or three apples, the sourest you can get, and roast them at a quick fire, then being extream hot, take one of them in a cloth, and having cut off the skin, clap the hot apple to the horse's forehead, and hold it hard thereunto till the heat be assuaged, then try if the hair will come off, which, if it will not, then take another hot apple, and do as you did before; then when the hair is come off, as broad as you would have it, take another hot apple and clap it to the scalded skin, holding it hard too, till all the skin blister and come off as well as the hair; then anoint the sore place twice a day with honey, and the next hair that cometh will be white.

To keep your woollen horse-cloths, breast-cloths, rubbers, and the like from moths.

When you turn your horse or horses to grafs, take all your woollen-cloths, of what kind soever; and first wash them clean, and dry them, then hang them in the sun, dust them, and brush them, then lay them on some fleaks, or some other open things, a pretty distance from the ground, and spread all open; then take the hoofs of horses and cattle, and chopping them in pieces, burn them under the woollen things, so as the smoak may come to them in every part; then, being thoroughly smoaked fold them up handsomely, and between every fold strow the powder of walnut-tree leaves well dried, and so lay them up in a chest, and you shall never be troubled with moths, which are very unwholsome for the horse, and troublesome to him. Others use to rub the cloths on the wrong sides, all over with the tops and tender parts of wormwood, with the same effect.

How to defend a horse from flies.

This is a noisome offence in the summer-time; therefore when you find the trouble thereof, take arse-smart, and keep it in running water, and make it exceeding strong of

the herb, and therewith sprinkle and wash the horse all over, and no fly will touch him a second time. The ivy, rue, or herb of grafs, will do the like.

Observations in the electing of horses, and the uses.

That which giveth the noblest character to a good horseman, is, the well electing of horses for that use and purpose he intends to employ them; and in this device there is no better nor readier a way than the knowledge of races and strains from whence the horses descend; for (as I have already intimated) it is certain, that the climate, heat and cold, are the three excellent elements in horses composition. As to the election of horses by their shapes and proportion, by their colour and complexions, and by their marks, and other outward semblances, I have already written sufficiently, and intend to iterate nothing. To come then to the election of horses, according to their races, breeds, and climates; if you will elect a horse for service of martial and warlike employment then these are the best; the Neopolitan, the Sardinian, the Almain, the French, or any of these bastardizing in themselves, or with fair well shaped and well-metaleed English mares. If you chuse for long travel and service, then

the Arabian, the Barbary, the Spanish, the Grecian, or any of these bastardizing in themselves, or with our best English mares. If you will chuse for long travel and service, then the English, the Hungarian, the Sweedland, the Poland, the Irish. If you chuse for draught or service, the Flanders, the Frize-land, or any of the Netherlands, either bastardizing in themselves, or with our English racers; and these are excellent for coach, cart, pack, or for any other burden.

I shall end this discourse of horses of several countries with a general observation I have entertained of the properties of horses. A horse hath two properties of a man; the first is, to have a proud heart; and the second is, to be bold and hardy. He hath two properties of a badger, the first is, to have a white rase or ball in his forehead; the second is, to have a white foot. He hath four properties of a lion, the first is, to have a broad breast; the second is, to be stiff-backed; the third is, to be wild in countenance; the fourth is, to have four good legs. He hath nine properties of an ox, the first is, to be broad-ribbed; the second is, to be low brawned; the third is, to be short pastern'd; the fourth is, to have great sinews; the fifth is, to be wide betwixt the challet; the sixth is, to have great nostrils; the seventh is, to be big on the chine; the eight is, to be fat

and well fed ; the ninth is, to be upright standing. He also hath nine properties of a hare, the first is, stiff-eared ; the second, to be green-eyed ; the third, the eyes round ; the fourth to have a lean head ; the fifth, to have lean knees ; the sixth to be light of foot ; the seventh, to turn upon a light ground ; the eighth, to have a short buttock ; the ninth, to have two good fillets. He hath nine properties of a fox, the first is, to be prick-eared ; the second, to be little eared ; the third, to be round sided ; the fourth, to be side-tailed ; the fifth, to be short-legged ; the sixth, to be black-legged ; the seventh to be short trotting, the eighth, to be well coloured ; the ninth, to have a little head. He hath nine properties of an ass, the first is, to be small-mouthed ; the second, to be long-reined ; the third, to be thin-crested ; the fourth, to be strait-backed ; the fifth, to have small stones ; the sixth, to be lath-legged ; the seventh, to be round-footed ; the eighth, to be hollow-footed ; the ninth, to have a rough foot. He borrows ten properties of a woman, the first is, to be lightsome, and of a merry cheer ; the second, to be well-paced ; the third to have a broad forehead ; the fourth, to have well sized buttocks ; the fifth, to be hard of a ward ; the sixth, to be always busy with the mouth ; the seventh, to be chewing of the bridle ; the eighth, to be

good at a long journey; the ninth, to be easy to leap upon; the tenth, to be stirring under a man.

My reader may perceive, that I descend to those familiar instances, the better to inculcate the shape of a perfect horse into his mind, without which there can be no good or safe election, let the horse be of any country whatsoever.

To fatten a lean horse in a short time.

Take him from grass and soil, bring him into the stable, curry and rub him, so as to loosen the skin, and chafe it with neats-foot oil; give him three times a day, for a week, mashes made of boiled oats, beans and bran to a good quantity; after this, for a week, make up balls of barley-meal, honey, enula campana beaten into powder, the juice of sweet fennel, and cummin-seeds; make these up into balls with new ale, and give him of them three a day as big as pullets eggs for a week, and after each half a peck of oats, and two quarts of split beans. This done, give him only oats and hay, and in a month, unless very old, he will be in extraordinary good case.

A certain way to know the age of a horse by his teeth, eye, eye-brow, hoof, &c.

A horse's full number of teeth are counted thirty-four, though there are some few that never arrive to that number, having only thirty, or thirty-one; and the times they come are these: A yearly colt has six on either side, above and below; and at three years old ten in the same manner; and half a year after, those that are ill-shaped, called *dogs-teeth*, drop out; and between that and six years, others spring up in their room; and at full six, they have as many as they will have, the great cheek-teeth and eye-teeth in that space falling out, and receiving others in their stead, being altogether hollow.

These perfect black marks or specks appear in the fore-teeth, and continue till eight; at twelve the sides of his teeth turn black, and so grow longer as his years encrease, except he feeds upon very hard meats, and be strong jawed, to keep and wear them at a stay; and after twelve his age is not to be found in his mouth.

Then observe his temples to be satisfied in it, which are less or more crooked and hollow, as he increases in years.

The next is his hoofs, which are seamed one over another; and if upon paring off a

piece of the hoof you find it brittle, dry and crusty, it denotes great age.

His tail likewise denotes his age; feel it with your finger and thumb, close to the setting on, and if the joint be knobby, and sticking out more than in other parts of it, to the bigness of a small bird's egg, he exceeds not two years.

His eyes standing out, full, round, and sparkling, not sinking in the pit, appearing even with his temples, then he is a young horse; but on the contrary denotes him old.

If his skin come up easy, and fall smooth when let go, it denotes him young; but if he be of a dark colour, and the hair of his eye-brows turn grey and grizzled, or if it be so under, it betokens age: Or, if a white horse have a black or red manuel over his body, it signifies the same.

If the bars of his mouth be large and deep, and rough in handling, then he is aged; but if the contrary, then young and fit for service.

Further general rules necessary to be known by the horseman and farrier, from warrantable experience.

A mare's best breeding-time for a race of good horses, is between three and ten years, and suffering her sooner to take the horse, she

will produce weak and sickly colts, or such dull ones as are not worth rearing. Put your stallion to her in a close warm pasture, and feed them well; let great care be taken of the mare when she is conceived, to be often housed, and fed with warm mashes. The stallion ought not to exceed her in age above a year, to be firm limbed, strongly chested, and crested, free as possible from diseases and forrances: Ride the mare sometimes, but gently, till she has quickened, and the colt become to some perfection; house her in rainy, damp, and cold weather; let her litter be easy, and cherish her with dry meats, scattering in a few cummin-seeds.

For gelding colts, the spring and fall are the best times, the weather being open and warm; do this in the wain of the moon, the sign being either in Aries or Virgo: Some geld them at nine days, but I hold it much better at half-a-year's end, then they will be more strong, lively and mettlesome. Wean them at a year or sooner, if you find your mare sickly, or deficient in milk; then put them out of the hearing of their dam, that he may the sooner forget her, and not pine after her; but after he is seven months old, let him not have his full of such, above once in two days. Feed him with pollard, or boiled barley, and put him in short pasture every day.

Back him not till three years old, lest you make him weak in the loins, or sway-backed; besides, it hinders his growth, and generally renders him lame in his limbs, though you may make him familiar with you, that when you come to do it, it may be done with little trouble: And then consider for what exercise he is best proportioned, and to that chiefly adapt him. In managing him to his paces and other exercises, and in all, it is requisite he should have a good mouth, trot freely, and amble smoothly, lifting up his legs in trotting, neither too high nor too low; that he gallop strongly, be in motion swift, and ride a round pace.

Directions for the better ordering a horse designed for exercise, as hunting, travel, &c.

In these cases, the day and night before the day you intend to set out, give him a due proportion of provender, litter him very well, and let him be clean rubbed down; lead him not abroad, but give him warm-water in the stable; rub and chafe into his joints, neats-foot oil, trotter-oil, or dogs grease. In the morning let him have oats and beans, but not hay. If he be brisk and lively, water him not before you ride him out of the stable, then ride him a mile or two at a wracking pace, and then well heated, ride an amble,

trot or other pace, at your discretion; and coming in to your inn or stage, scrape off the sweat before you rub him down. The knife may be made of a piece of scyth or broken sword; then give him a proportionable allowance of provender, somewhat more than usual.

If he be any thing hot, give him warm-water, otherwise cold-water will do as well; and bringing him home observe the like measures; put on his cloth, and tuck dry whisps between his girts and body; let him stand in the bridle about two hours, then toss a knop of hay into the rack, and soon after give him about two quarts of oats and split-beans, among which scatter a little hemp-seed well cleansed; and when he comes to the last bait, give him warm-water and oat-meal, lighten up his litter, and let him take his rest: And thus ordering, if he be not a defective horse, he will perform what you put him to, to your content.

*Opinions as to saddling and bridling a horse,
much approved.*

If the horse be wild and skittish, impatient of the saddle and trench, and when they are offered, to make him familiar with the sight of them, always hang them near him in the stable. Offer it till you see some willingness in him

to accept it ; girt the saddle on gently, and put wisps between his body and the girts ; put on an easy bridle first, and so harder by degrees ; in a fair day carry him to a plain ground, trot him round you, and sometimes cherish him with your voice ; strike him a little with your wand, and lay your weight on the saddle without mounting ; shake and strike the stirrups against his sides, and do all such other things as may usually happen in riding ; by this means you will become familiar with him, and he with you : Then take off the slight and easy bridle you first try, and gird the saddle hard ; wash his mouth with ale and treacle, and put into it a full-mouthed trench bit, so drawing the reins over his head, lay them on the saddle, give them now and then a gentle pull, that he may feel it, and champ on it ; fasten the martingals from the chaulbands to the girts, yet with some slackness, unless he is apt to startle and toss up his head, then fasten a broad piece of leather about his neck, at his withers, and before the middle of his wind-pipe, about six inches beneath his throple, between which and his neck draw the martingals, to prevent his ducking down his head, and this will make him carry his neck archwise, like a swan, and add much to his comeliness. And thus use him nine or ten days before you actually attempt to back him.

The best method for backing a horse.

Having made your horse patient of the saddle and trench, carry him abroad, then make many offers to mount, by putting your foot in the stirrup, at length leap on his back, sit fast, and keep your legs close to his sides, give him a little head, and draw him on to ploughed ground, where let him run till he sweat, then breath him again, and cherish him : Shake your legs and stirrups, keep his head strait, and his neck archwise, yet venture not to ride him far before he is familiar ; after this feed him with bread or grass, if he will take it out of your hand. Having thus done two or three mornings, or evenings, lay by the trench, cavesson and martingals ; let another ride out before you on a well-managed horse, and ride him slow or fast, as you see him disposed, letting him go equal with the other horse, but not before him, till perfected to bear his burthen.

THE
COMPLETE HORSEMAN;

OR,
TRUE ART OF HORSEMANSHIP,
in all its Parts and Perfections;

UNDER SUNDRY HEADS.

And first of all, a brief Introduction to this undertaking, to render it more apt to be understood by the Reader.

BEFORE I come to speak of the action, wherein the true understanding hereof is most proper, I purpose to give a little further instruction; and first of the voice. When you mind to help your horse therewith, it must be with a moist, mild and chearful voice, as to say, 'Hey, boy; holoa, holoa; so boy, so; hup, hup; enough, enough, no more;' and many other such-like; but a correction is clean contrary, when with a terrible and thundring voice; whereas, in cherishing, the most mild and sweet voice is used, as, 'My good boy, so my good boy,' with an inclination of tending your body to him, and such like encouragements. So is also the sound of the voice to be used, as well as a

voice pronounced, by giving a chirk with the tongue, which may be called chalking, in pronouncing whereof the tip of the tongue striketh the roof of the mouth : And so also there is another sound of the voice, as ‘ Hah, halo.’ The next is the hand, the true use and government whereof is the ground of the whole art ; and as for the bridle and the rod, they are but dead and senseless instruments, without all use, when they are not appointed for the right one, of the temperate and steady hand, bearing upon a firm and moderate stay, neither too much slacking, nor too much drawing in, every good horse causeth a true and just rein, bearing a staidness, with a light and sweet mouth in all action ; so as whatsoever the horse doth, he doth easy, ready and perfect, and being done with delight, must of necessity be best done, because it best pleaseth both man and horse, neither of them being moved to any perturbation, grief or pain.

The third thing is the legs, wherein the use of the calves of the legs, the heels, the stirrup, and the spur, are to be handled, I shall, to avoid repetition, and all manner of tediousness, refer them also to their proper places, and at present divide this our immediate concernment into certain general grounds or rules, to follow, which the rider may have

daily use in teaching the whole art to his horse.

For as a young scholar is to be taught, so a young horse in the beginning is to be managed, whereby all their actions might bring delight and admiration to the beholders, and this must be done by mild and slow teaching, not too much, for the horse to be wearied with long teaching at one time, but giving him often breath, high keeping in courage, often rewarding, cherishing, using great familiarity, and observing he has no change of the rider till he be perfect, no change of bit, nor rough bit, no cutting or galling of his nose or mouth, but gentleness to render him easy, no beating nor whipping, no violence or passion, but proceed with all manner of imitation of nature's delight; this maketh all the horse's actions more than wonderful, because nature hath a natural love to itself, and an innate hatred to all things that are enemies to the same, which is plainly testified by that natural sympathy and antipathy which may be observed in all creatures, as the lamb which never had experience of the wolf's cruelty, yet at the first sight of him doth tremble and fly for fear.

Of Correction.

The rider should never correct his horse,

but when gentle means and cherishing will not prevail, for no doubt but that he will willingly yield by gentle means, if it be made sensible unto him, what, how, and when to do; but that horse that will not be moved by gentle means, let the rider assure himself that he is of a bad nature; if any thing shall happen wherein of necessity correction is to be used, if he offend, in the instant that he erreth correct him; but how many horse-breakers and ignorant riders minister violent correction when the beholder cannot so much as find a cause, nor himself express the reason; but error evermore taketh that for truth which is false; so as it plainly appeareth, that when a horse has been taught, and yet notwithstanding erreth in his discipline, correct him for error, but not for ignorance, which renders the rider either to be mad, or as ignorant as the horse.

Particular rules and directions for the management of a horse, to train him up to a good and commendable trot, being the foundation of all.

1. Let the rider observe, that when he is teaching his horse herein or any other lesson, that he do not trouble him with any other thing at that time, neither suffer him to begin to learn any other.

2. That he do not suffer any other to ride

him until he be perfect by himself in such lessons as he hath taught him, lest he should be confused by the diversity of teachers, and their manner of teaching.

3. That when he is brought to a just stay of head, and assurance of the bit, then the riders is to maintain him therein to a full perfection.

4. When he is out of order, then let him stay him and make him go back, as before was mentioned.

5. When he is in order, then let him make much of him, and stay not long, but with a firm hand gently put him in his trot again.

6. If he continue in his good order, cherish him, guiding his body with a pleasant and gentle motion of the calves of your legs, move him to do it more expeditiously, which if he be of a good nature, he will speedily perform, always remembering to keep a firm hand.

7. If his trot continue not light upon your hand, stay him, and cause him to go back, which will bring him in order again, and then gently put him into his pace, and so to his trot, as before; which being well done, cherish and delight him, with all the sweetness that may be, so that the rider may ever win his love thereby; guide him home by some leading lines, and give him a little grass or hay out of your hand, tickle and scratch

him, and speak to him most loving words, which will make him at his next exercise do all things to his rider's content; twenty days, or thereabouts, he will pace and trot in such order, as that the rider may always afterwards trot him most swiftly in the rings, or in the manage.

8. In his swift trot, by all means keep your true seat and firm hand, so that he lose not that excellent form and grace before prescribed; but do not gallop him till he trot, to put him to a swifter gallop in the large rings, even to the stop: But beware you draw not your hand hastily to you, but by a little sway of your body, back and hand together, and stay your hand there until he retreat a step or two, and there stay him and suffer him not to go forward, and at that instant to make much of him, and so let your hand and body re-assume the same place again.

9. If he should then offer to go forwards, stay him with the like sway, and then alight, and lead him home, making much of him, as you did before.

10. I dare to assure the rider of the right use of what hath been said, and of the success thereof, therefore let him follow this practice, and continue it: let him pace his horse overthwart some deep fallow as fast as he can for half an hour, but suffer him not by any means to trot, keeping his hand in a firm and tem-

perate stay, as before, and if he still find his head in due place, his carriage light and pleasant upon the bit, he may assure himself that he hath gained the perfection of the hand, and the true use thereof, for the teaching and making of a young horse; wherein observe, that if he be of a perfect shape, his head will be in the due place, and light upon the bit.

Short infallible Rules to be observed and practised by every horseman.

I. Do not gallop your horse before he can stop well.

II. Do not run him before he can stop in his gallop.

III. Do not swiftly gallop him before he can stop.

IV. Do not make him a runner before he be six or seven years old.

V. In all his doings, from the beginning to the end, keep his reins true, and his head steady; for this rule is the foundation of all other rules.

VI. In the morning early, when he is empty, before he eat any thing, teach and exercise him until he be perfect; and after, twice or thrice in a week is sufficient.

VII. In all his teaching and exercise, do it moderately and temperately, and leave him

always after the well-doing of his lessons, both in breath, and with a good mouth.

VIII. After he is perfect in his lessons, let the rider exercise him not always in one place; neither let him confine himself to a just and certain instant of time, viz. neither more nor less, neither longer nor shorter.

IX. In managing of his horse, let him not gallop him swiftly at the first, but with a soft pace, and seldom with a gallop.

X. In correcting of his horse for an error, let him correct him in that instant he commits it.

Other ways and methods for the management of a horse for war, travel, hunting, racing, &c.

Though these I have mentioned are by all expert horsemen accounted the best for training up horses to their exact paces and management, because herein native freedom without shackles is the most agreeable; yet since some use another method, I shall give a brief account of it, and leave them both indifferently to the choice of those that are to practice herein, viz.

When you are to teach your horse the true amble, which is the ground of all others, lead him a wracking pace in your hand, and observe the motion he is most inclinable to, whether trot, running, bastard amble, or

others ; so mount and wrack him deliberately, by the help of his mouth-weeks, with his snaffle smooth and large ; and when you have brought him to some management to endure the trammel without stumbling or flying out from it, in this manner :

Take strong pack-thread, and twist it into a cord about the thickness of a jack-line, so firm, that it will not give the least way, let your horse, or parts fastened about his legs be close, soft and immoveable, the back-bands light and somewhat broad, that they may not hinder his fillets, and the side-ropes be thirty-six inches in length ; but if the horse be of a long reach, you may add one inch more. Place the horse on the small of the fore-leg, and upon the hinder, just above the fetlock, of fine girthweb made of cotton, flannel, or some such soft-like matter, fastened with neats leather, tabs of even lengths, suppled with tallow, and divers holes punched in them at an even distance, to pass through the nooses that are to be on the side-ropes, so that by buckling the ropes, may be drawn up or let out at pleasure, the tabs not exceeding ten inches, nor the holes in them four ; then let the back-binds that are to hold up the side cords, if you trammel all your horse's legs, be made of girthweb lined with flannel ; but if only two legs, filleting or strong tape ; but observe it keeps the side-cords even

in a line, without either twitching up, or suffering it to fall, for rising shortens the side-cord, and falling makes it apt to entangle the horse.

The use of the trammel.

The trammel well made, proceed to use in this manner, viz.

Bring your horse into a place that is even, free from cumbers or stones, and put on the trammel, your horse standing as even as may be, not straining forward nor crimpling inward, but in a just and even proportion, then having your hand on the bridle, by gently straining his head, oblige him to move forward, compel him to amble about the ground chosen, very leasurely, using him with much gentleness, and often cherishing him with your voice, till he feel the trammel, and begin to be acquainted with what he is to perform. And by this means, though at the first he trip or stumble, he will be brought to it more at leisure, and become familiar with it, if your harshness hinder it not. Though it is not amiss, if at first, when he begins to learn, you permit the side-ropes to be longer than the measure mentioned, to prevent his twitching; but when he begins to be perfect, have them ever of a constant length;

let the over-length render him a slow ambler, and cause him to halt or shuffle.

Times proper to alter the trammel, and convenient to mount.

When the horse can amble pretty well by hand, change the half trammel by removing it from one side and placing it on the other; and so, as you see occasion, put on the whole trammel till he run pretty swift, without the motions of snapping or stumbling; then try him upon uncertain, uneven ways, up and down hill, and in such roads as you think you shall have occasion to ride him: Then having inured him to it, mount on his back, or set another to do it, whilst you stay his head, and keep him from an inconvenience, and observe well how he treads. After that yourself may mount, cherish him often, and so oblige him to mend his pace, till he move with as much agility as you can desire, and forget not between whiles to put on sometimes the half-trammel, and at other times the whole, shifting often from one side to the other, lest he forgets his pace; and in so doing twice or thrice a day, he will in a month or six weeks be brought to good order, and then without a trammel, ride him on the road, without chusing the way. Have with you also a half-trammel, so that if he

faulter, alight, and put it on; which will quickly mind him of what you intend he should do.

| How to stop in a full career, advance, &c.

To make horses stop in any pace, draw suddenly your bridle-hand, strait and steady, hard and sharp, and by that means he will stop firm and close, also even. But, if after you have drawn in your hand, he turn sideways, or more forward, put him to it again, and when he stops well, attempt to make him advance upon your stop, that is, rise with his fore-legs, which is done by a sudden clapping the calves of your legs close to his sides, forbearing to touch him with your spur, but shake your whip or switch over him, which will add much grace to his stopping; and try him till he well understands, and will perform it.

How to oblige horses to retire, and endure the various sorts of bits.

To make him do this, draw him back with a steady rein, that with his legs lifted up as in a trot he may retire, and suddenly retreat three or four paces, which, in case you design a horse for war, is a very commendable thing, and indeed in any other, on several

occasions ; observe herein to make him do it in a direct line, not turning to one side or the other, nor suffer him to shuffle in his retiring, but to take his legs up even and clever from the ground.

Having brought him to this, if you design him for war, take away his trench and martingal ; leave only the cavesson of three or four pieces of joints to be used, viz. a joint in the middle, and a strong ring fastened to it, and on each side a joint with rings before them, and fasten to them divers reins, in drawing of which you may use your horse at command ; or, if this be too hard, put into his mouth a common bit, made up with a French cheek, fitted to the proportion of the horse's neck, for if it be otherwise, there can be no true management, for the long check lifts up the horse's head, and the short one pulls it down.

Particular observations on ambling, racing and galloping.

Observe as to the fitness of pace, the horse's motion of his legs when he takes them from the ground, and you will perceive in his cross moving what he is properly designed for, viz. if his hinder and fore-leg move together then at one and the same instant, and in this motion the nearer he takes up his limbs from

the ground, the opener, evener and shorter in his tread; but if he do it uneasy, slovenly, and in a shuffling manner, that denotes stumbling, lameness, or some such imperfection. If he tread cross or narrow, it signifies he is subject to interfering, and will hardly be induced ever to tread sure. If he takes his steps askew and uneven, it denotes him subject to faint and tire, unable to perform long journeys, or hard service. If he treads long, it signifies he is subject to strains and over-reaches; and therefore a moderate even pace, and the clever carrying of a horse's legs is to be chosen, that your labour in teaching may not be thrown away. But the particulars.

As for ambling.

If you chuse your horse for pleasure and ease, then none is more suitable than this, it being opposite to trotting; as thus, both the feet on one side must have equal motion, viz. the far fore-leg, and the far hinder-leg, which must move just, even, smooth and swift; for if the horse tread false or awry, it takes away much of the easiness of his pace; and if short, then no more ground is ridden than if he went a round foot-pace: If he treads rough, it denotes rousing in a shuffling manner, and is a false pace which had

been taught him by an unskilful hand, and he will be apt to fall out of it into a trot, or in a short time forget it.

As for racking.

This is a pace most used in hunting or riding post, being between a pace and a full gallop, by some termed a full speed, yet little differs from ambling, except in being more swift, and of a shorter tread, though in ambling the ground is better ridded, yet this pace is more easy, and highly approved by many expert horsemen, who use particularly to teach it, though I find no certain rule for it, but conclude it a motion natural to most horses that are brought to the amble.

As for the gallop.

It is most appropriated to the trotting horse, for falling out of his trot he has no other pace but the gallop, as likewise a horse well used to racking will naturally take this motion; but the pace is very awkward to be brought to, although in a while, with good usage and gentleness he may be brought to it; and the reason why this is at first irksome to him, is, because having been trained to a set pace, when he is forced to a motion somewhat of the like nature, (though

much swifter) by straining to swiften his pace, he scrambles with his legs, but in a month's time understanding the alteration, he will be apt enough to take it with little trouble; however, beware that you gallop him not too often, nor to excess, lest it spoil his pace, rendering it hard, coming something near the trot, by reason of straining.

Observe in the cleverness of galloping that your horse raises his feet nimbly from the ground, but not too high, that neither he rouleth or beateth himself, but stretching forth his fore-legs, his hinder-legs keep him cleverly and swiftly, that he cuts not the knee, nor crosses or strikes one foot against another, but still leadeth with his far-foot. If he gallop short and round, his fore-feet well rising, denotes him strong, but not swift, and so consequently fitter for war than racing. If you perceive he takes up his legs confused, as if he did it in pain, he will never make a good galloper, for it denotes the sinews to be shrunk, that with little travel he will often be subject to halting and lameness. As for the trot, it is natural to all horses; but the lofty prancing horse is for war accounted the best; and that for travel that rides most ground with least pain to the horse, he taking up his feet cleverly and even from the ground without interfering.

The running horse, or racer, how to manage, feed, physic, bring to the post-start, &c.

Having spoken pretty largely as to what hitherto relates to this noble creature in many particulars, I shall now, for the accommodation of the gentlemen and others, who hath much desired it, give directions, plain, easy, and with as little charge as possible, how to order and manage a horse for bringing him to run a race, or more properly, to be matched. I know that there are some who aver, it is impossible it should be done in six months; others allow five, and none of past times under. This I look upon as a design not so much to rob a gentleman of half-a-year's pleasure, as to put him to treble charges, to the advantage of such who undertake to look to and order running horses; and therefore I thought fit to undeceive such as have been imposed on, by plainly laying down a nearer, less chargeable, and more easy method, altogether as safe and effectual, viz.

If you design to match your horse, consider well the state of his body, and do it not inconsiderately; and this may be observed in three particulars:

1. If he be foul or fat, or newly taken from grass or soil.
2. Note, If he be very poor, or lean, by

over travelling, infirmity, or hidden cause you cannot at present discover.

3. Take notice, if he has had good usage, moderate exercise, and be in good state and plight.

And from these observe in the first case, to take a longer time for keeping, matching, and bringing him into good order, fit for running, which indeed if long, is the most violent of exercise; in this case get two months, or if you can something more.

In the second state of the horse's body, you need not take so long a time, especially in case only of leanness, because the greese cannot injure him, and you may exercise him with his feeding, that is, at all seasonable times.

In the third state, which I consider as a mean between the other extreams, he may be dieted for the match in a month or six weeks. But to come near to my purpose, I allow two months to be a sufficient time to prepare a horse under any of the states of body, to run a match, and these for the better leading to the end of what I purpose, may properly be divided into shorter periods of time, viz.

*The first fortnight's ordering the running
horse, &c.*

If the horse be fat or foul, newly taken from grass or soil, and you have, or intend to match him, bring him to a clean dry stable, litter him well, and over-night give him two quarts of split beans, and as many dry oats, rub him down, and litter him well with dry clean wheat-straw, and early in the morning rouse him, if laid; dip his bit in beer, put on his bridle, and dress him and cleanse him in all parts. If the weather be cold, have a large strong body-cloth of Kersey, but in warm-weather cotton or such like matters will do, (for in heats you must be very careful he takes no cold or surfeits) fold this well about his body-place on his saddle, bring close the foremost girt, but the other leave so loose as to thrust a whip between it and the horse's body; let your breast-cloth cover his shoulders, and washing his mouth with beer, leave him for an hour, then lead him forth and rack him gently in even ground a mile or more, then gallop moderately up some hill; so rack or walk him down again; then cool him a little, and ride him to some pleasant river or spring, and let him drink, which if he refuses, exercise him again till he will do it; when he has drunk, rack him

home, and put him cool into the stable fresh littered, having first, if possible, made him, on the foul out-cast litter, void his urine and dung.

Being in the stable, tye him to the rack, and with hard wisps let his legs be rubbed down, and all his parts the like, taking off the saddle, and cloathing him warmer or lighter, as the season requires; so wisp him round, cleanse his feet, and throw in the rack a knop of hay well dusted to tear while he stands on his bridle, which may be half an hour; then give him a quart of the whitest and heaviest oats, and if he seems desirous of more, you may give him another like quantity; then leave him to his rest, till eleven o'clock; then visit again and rub him over gently, give him three pints of the like oats, and close the stable as dark as may be. At two hours end visit him again with the like quantity of oats as before, rub him gently, and remove the excrements, give him a bottle of hay, and leave him for three hours more, if in summer; but if in winter only two and an half; then wash his mouth and the muzzle of his bridle with beer; saddle him and bring him forth, having well rubbed him down; then endeavour to make him empty on the old litter; ride him forth and give him gentle breathings by some pleasant river or meadow, that he may take delight in it;

but with a full stomach gallop him not up a hill, lest it endanger his wind; heat him both before and after water, and in the approach of dark bring him home; so by early and late airings the foulness will be diminished, and the gross humours dispersed. Use him in stable as before, and visit him three hours after with a like quantity of oats; toss up his litter, and let him rest till morning.

Things proper to be observed in heats, &c.

Two heats in a week, if they be thorough ones, are sufficient for any state of body. If the match be made for running on a Tuesday, then let the heating days be Tuesday and Saturday in each week, and the greatest on the Tuesday; but in rainy slabby weather you may shift these days, and chuse those that are fair; or the hours in those days may be changed where necessity requires it. If the weather be dull, heavy, dripping or cold, it will be convenient when abroad to have a hood with large ears on your horse, to keep out the rain or damp, the nape of it thickned with a lining, that the wet may not easily penetrate, lest the wet falling on his ears, neck, or fillets, subject him to diseases, and hinder his performance; carry him never to heats before day, nor keep him out after it is dark.

Rules for the second fortnight's keeping.

Use him in littering and dressing as before ; only what hay he has, let him take it out of your hand to be the more familiar : When he has eaten his portion of oats, bridle, ride out, air and water him, as in the foregoing fortnight ; and when you return, you may give him near three pints of oats ; let him take hay out of your hand, litter him well, and so leave him a diet-bread in the following manner :

Grind three pecks of beans, with one of wheat, dress them through an indifferent fine rag to a fine flower, then put ale-yest and fair water to make the dough ; knead it exceeding firm, then let it lie till it rise and become light, then knead it again and make it into six-penny loaves ; let them soak well in an oven, and being hot, turn the bottoms uppermost and let them cool, and three days after baking, use them in the following order :

Cut the bread into thin shivers, and lay it a while to dry, crumble it small amongst the oats, and give it to the horse, not exceeding a pound or half-a-peck of oats ; this do first in the morning, and about eleven repeat it again ; then let him rest two hours, and feed him with the like again, and so at distant spaces, as his appetite best serves him, keep-

ing every thing clean about him; let his heats, airings and waterings be the same, unless in foul weather, as I have said; but when he is led to the heats, give him oats only; and when he is returned and fed, put on his muzzle washed in beer. This use of the muzzle is to prevent the horse from feeding on his litter, biting or gnawing the rack-staves or manger, liking loam, and many other inconveniences. They may be made of leather, pack-thread or double canvas, though the latter with lettice is preferable, the leather being the worst, by reason of its scent; yet these must be kept clean, lest offensive smells nauseate and sicken the horse's stomach.

For the rest of this fortnight, observe he be duly cloathed and dieted as is requisite according to the season; then put a new laid egg whole, into half a pint of new ale, and oblige him to swallow it, so lead him forth and cause him to empty, by smelling at the litter or old dung, which will oblige him to it; then rack him gently for a mile or two, so by degrees mend his pace till he come to full speed, and bring him to the starting-post, if any such be appointed; or if none, then to some other post near the place where the race is to be performed; then alight, take off the body and breast-cloth, place on the saddle, mount him, let him smell to, and grow fa-

miliar with the post, as likewise to the waging post, and so run him three quarters speed, from the beginning of the designed race to the end, if you find he will do it without pain or loss of wind ; but if it be irksome to him, then slacken your pace, and by degrees he will come to it with delight ; and in particular remark on what ground he most naturally affects to run, whether soft, hard, smooth, hilly, dark or dry, and make it your advantage in the race.

This done, bring him under some hay or corn rack, hedge, pit, or dry ditch, there scrape off the sweat with your glazing-knife, and rub his ears, head and crest ; clap on his cloaths and saddle, and ride him gently, so that he may cool before you bring him to the stable, but keep such a pace that he may not cool too fast, or all on a sudden. Having stabled him, tye his head to the rack, and having the following scowring in readiness, give it him as shall be directed.

First scowring.

Take an ounce and six grains of the transparent roch allom, a pint of Malaga, in which dissolve the allom ; to these put three ounces of oil-olive very sweet, mix them well together, with an ounce and half of brown sugar-candy in powder ; these set on a gentle

fire till pretty hot, and upon the horse's return from the first thorough heat, give it him in a drenching-horn, and it will infallibly bring away the molten grease and bad humours, or any other obstructions that remain in the body, and would make him unfit for his exercise.

When you have given the horse this scowring, rub him well all over with wisps or a curry-comb; follow these with a brush, and dust him well, then rub him with a bay cloth till no sweat appears; put his cloth on again, and thrust under the cloth warm wisps; let him fast for the space of two hours, and keep him in continual motion that he sleep not, that the humours may disperse and evacuate; then give him a handful of wheat ears. If upon handling him under the bars and near the heart you perceive no more sweat arises, but if he be faint or sickish after the expiration of the time, toss up his litter, take off his bridle, and let him rest for the space of two hours, and he will be well again, then give him wheat ears gradually, and rub him down; after that, let him feed on hay out of your hand, and an hour after crumb three shivers of the bread mentioned, with a quart of oats, and a pint of split-beans; let him rest after this three hours. That expired, visit him again; and before you dress him, give him a like quantity of oats, beans and

bread ; then ride him, his cloaths being on, a little way, but suffer him not to water till about an hour and a half after ; then wash a pint of oats in beer, and give them to cool him, and in so ordering leave him till morning, with a little hay, and continue after his usual feedings and gentle breathings.

Thus having ordered him, observe in the other three heating days to improve his speed, and give him the aforesaid scowring, and he will be very pleasant and lightsome.

The third fortnight, how to order him.

Having thus far proceeded, mingle half a bushel of the best wheat, and a like quantity of beans, grind them very small, so that the flower be finer than the former, and make it up into loaves the same way, and it being baked, after three days cut the crust away, slice it out and crumble it as before, with oats and beans the same quantity, and let the feeding be as in the foregoing fortnight, and his heats must be more moderate, lest you over-strain him ; the scowring as formerly ; nor giving any more after his heats, lest being empty of humours, and his body open, cold and watery humours enter in at his veins and pores ; but when at any time he is moderately heated, bring him home and cool him by a gentle racking before he comes to

the stable, giving him cordial-balls, according to the following receipt.

Cordial-balls for the third fortnight.

Take carthama-seeds, anniseeds, fennel-seeds, elecampain roots, and colts-foot leaves, each two ounces, dry them well, that when bruised they may become a powder; sift it through a lawn-sive, and two ounces of the flower of brimstone, and an ounce of liquorice-juice, put these into a pint of white-wine, chymical, oil of anniseeds, sugar in syrup, and sallad-oil, each half a pint, and being well mingled, mix them with so much wheat-flower as may reduce it to a paste; make it up into balls as big as French walnuts, or pullets eggs. These increase his wind, expel cold, purge away molten grease, and produce good sound flesh. He may take one of these in the morning, and another at night, whole, or dissolved in a pint of warm ale.

Rules for the fourth and last fortnight.

This requires more caution than any of the preceding; let his bread therefore be finer than any hitherto, three pecks of wheat to a peck of beans, and boulded as fine as may be; make it up with the white of twenty

eggs, and new milk instead of water; let the oats you give him with it be well winnowed and sifted, and the split-beans clear from husks, though the quantity you give him may not differ from what has been directed. In the first week keep the heating days as before; but in the next, which is the last, bate one of them, so that he may for five days be at ease, to recover his spirits and strength, yet you may give him considerable airing to keep his wind in good length; however, give him no scowring, but the better to expel the fumes or vapours, burn albanum, storax, or frankincense in the stable, when close shut, on a chaffing-dish of charcoal. Sometimes sprinkle a little muscadine on his meat, at least twice a week, and give him once a day half a pint of wine, with the whites of two or three eggs beaten in it, omitting the hay, unless a small quantity after his heatings.

The muzzle may be laid aside the last week, unless the three days before he runs, except he be a foul feeder, and prove to eat his litter, &c. Let him be well fed before and after airings.

The day before the wager is to be run, water as formerly, yet a fourth part of his meat must be withheld, and in your evening airing bring him home sooner than usual, even before sun-set; and this day let him be well shod, and every thing that is necessary

done to him, that nothing may be new or trouble him the day he is to run.

On the morning the match is to be run, come early to him, take off his muzzle and rub him well, especially his head, ears, neck and withers; make him a mash with muscadine, bran, oats and bread, as directed; if he refuses this, give him dried oats, and after them a pint of muscadine, with three new-laid eggs in it; then wash his muzzle with the same wine, lead him out, and endeavour all you can to make him empty; lead him among breaks, stuble, or the like, smell old dung, &c. which will provoke him to it; for emptying is a great advantage in running. You must bring him covered, his saddle and girths lightly on him, that he may not feel any weight; wash his mouth if he foam, and gently cherish him with your hand and voice.

Note, If you are to ride with a person, who, by reason of his being lighter than yourself, or who gives you any advantage, that there must be way-bits in the case, be sure to order them, that you are not deceived in the management; so make your agreement, if you can, that he who rides against you carries not the weights in his saddle, for then they are in a manner, as if he carried none, and the disadvantage is yours, for they neither disadvantage the horse nor rider, unless great odds be given in the weight of the

riders which seldom happens ; but if he carry them about him, then is the advantage much to your purpose, for they will both hinder the horse and his management.

As for your ground, you must (as I hinted) observe which your horse takes best when you give him his heats and airings, and in the race chuse the most agreeable the place and opportunity will give you leave ; but throw not yourself out in being too curious in this matter, if it be not easily gained from those that ride with you, for by such niceties many have lost great matches.

*Stars, snips, and blazes for beautifying a horse,
how to make them.*

To make a white star, snip, or blaze, in a white or forrel horse, cut a piece of lead flatted and smoothed proportionable to your fancy, then the hair being shaved off in the place intended, open the skin with a lancet so hollow that you may thrust the lead in when dipt in spike oil, close it up and anoint it with oil of mallads and camomile, laying over it a plaister of bees-wax ; when it has been there four days, take the lead out, clap the skin close, and anoint it as before, and when the hair (which it will soon do) grows again, it will be milk-white.

Read stars on a white horse are done in the

like manner, in forming your lid, shaving and opening the skin ; but you must use, to cause the colour, oil of cassia, foot, and vermillion, finely tempered together, and the lid anointed with it. Take out the lead at the same days as the former, and anoint the sore place with ointment of tobacco, and marshmallows.

A black star in a white horse make as the white, only the ingredients must be fowler's-ink, or lamp-black and oil of tartar, and in this manner you may make feathers or marks on any part of the body for beauty and ornament, though too frequently used by some, who do it by way of disguise, that a horse ill come by may not be discovered. And thus one star, snip, or blaze may be taken out, and a different colour put in.

Things to be observed when you put your horse to grass.

Having spoken many times about dry feeding, it will not be amiss for the horseman to know how he should be ordered at grass for his health sake, and to keep a comely proportion of body, for in the knowledge of this there is much advantage.

When he has stood in the house, and you intend him for grass, abate or change his cloaths, putting on thinner daily, that by de-

grees he may be weaned from them, and in the end wearing none, take no notice of it, or be prejudiced with cold or blasts of wind abroad.

This done, let him blood twice or thrice, there being a day or two's respite between; give him heartning meats; by degrees lessen his allowance, and in the end let him for two or three days before you send him out feed on hay alone, and put not any valuable or tender horse into wet pastures, where fogs, damps, and unwholesome airs arise, fens, marshes, ditches, bogs, rivers, or the like. However, the better to fortify him against sickness, or lameness, give him the following drink very warm three mornings and evenings.

The drink to be given before grass.

Take bay-berries, myrrh, gentian, aristolochia, and shavings of ivory, each an ounce, bruise them when dried, so that they may be reduced to powder, give him half an ounce at a time in Muscadine Malago, or for want of it, sweet wort, a quart of either pretty warm.

Thus having fitted him for the field, put him out in a warm dry day, that the cold weather may seize on him by degrees, so that

shutting the pores, he may be hardened against it, with little damage to himself.

*How the horse is to be used when taken from
grass.*

Observe in taking him up, you do it in a dry day, the horse by heat and air freed from damps or wet; and this is best done about Bartholomew-tide at farthest, unless the weather be exceeding clear and warm, and then he may run to the first of September, but not conveniently longer; and for a week or two after taken up, give him no immoderate heats, nor over-travel him, lest you melt his grease, for the fat gotten at grass is exceeding tender, and apt to be dissolved by a violent motion, whereby if the blood happen to be inflamed, it will endanger his falling into mortal sickness. A day after he is stabled, bring him forth into the air, and bleed him well; cleanse his feet, and shoe him, and give him the drink in proportion before prescribed for going to grass.

Rules to be observed in bleeding and purging.

Bleeding is the most ready, as well as the most useful operation, for relieving any creature in sickness, or disease, that can possibly be performed: For by this the most imme-

diate relief is obtained, seeing that by it the
 fierce *æstus* or heat of blood, together with
 its velocity, is restrained and abated; and
 not only the heat and velocity, but likewise
 its vicidity or clamminess, may (in some
 measure) be destroyed. Therefore in all
 cases, where the blood is too much agitated
 and in motion, or where it is thick and sizey,
 I say, in these and such like cases, this operation
 is of service. But I shall lay down
 some particular directions, which more especially
 require bleeding, and, in doing this,
 I shall not tie people down to particular times
 or seasons, or the influences of the planets,
 though indeed the old physical writers put
 great stress upon the last of these, notwithstanding
 they were ignorant of natural philosophy,
 a science so essentially necessary in
 the cure of diseases, either in human or brute
 creatures. I do not deny, but in several
 cases the planetary influences upon the fluids
 of the body are exceeding wonderful; and
 these operations the learned Dr Mead has fully
 explained, in his treatise *de imperio solis et
 lune*: But this gentleman's way of splitting
 hairs is too tedious a task for me to venture
 on at present; neither would the same (in
 my opinion) be either edifying or instructive
 to the greatest part of my readers. Therefore
 I hope to pursue my first rule and de-

sign, which was to publish this book with all the perspicuity and plainness imaginable.

And *first*, Bleeding ought to be avoided (if it can with safety) in all extremities of heat or cold, and the signs which require it are a *plethora* or overfulness of the blood-vessels, and this may be discovered by a horse's being purfivè, when he is put to any kind of exercise, that is, if he be not actually asthmatic; (or broken-winded, (as the farrier's term goes;) and even in this case bleeding wonderfully relieves a horse's breathing, by lessening the quantity of that fluid with which his lungs are so inflated and blown up.

Secondly, Blood-letting is requisite and necessary in almost all fevers, whether simple or complicate, that is to say, whether the fever consists in an augmented velocity or quickness of the blood's motion, or when the blood is (along with this increasing motion) vitiated or corrupt. But care should be taken to form a right judgment of the distemper: For, if it have its origin from want of blood and spirits, as is frequently the case, after large *hæmorrhages* or accidental losses of blood; or after long scouring, or too plentiful evacuations of whatsoever kind; or when a horse has for some time been in a wasting or declining condition; I say, in these cases (although some indications or signs may shew bleeding proper) yet it ought to be practised

with the greatest caution and circumspection; and if blood must be taken away, it ought only to be done sparingly, and in very small quantities.

Thirdly, I would have the farrier always remember this general rule, to wit, that 'bleeding is requisite in all imposthumations or gatherings of corrupt matter in any part of a horse's body, and more especially when such swellings are situate upon the glands or kernels of the throat, or when they endanger suffocation, or any other evil accident:' But, if the farrier is consulted too late, I mean if he is only called when the horse has been ill for several days, and that there is a tendency to suppuration, or coming to a head, as it is vulgarly called; I say, in this case bleeding is not to be used, because by so doing we oppose nature, who is at this time endeavouring to throw off the enemy another way. But in swellings of the legs, occasioned by the *grease* (as it is called,) bleedings may be serviceable, especially if it be used in the beginning of the disorder; for by this help revulsion, or a forcing the humours to a contrary part, is performed, and when this is effected, then it is necessary to purge the horse, in order to carry such foulness off by the most proper outlet: For what signifies causing a revulsion, unless you afterwards free the horse's body of what is oppres-

five and burthenfome to nature? For if the peccant humour happens (by bleeding) to be tranſlated from the extremities, it is ten to one but ſome more noble part is affected by it, unleſs ſpecial care be taken to purge it off in the moſt judicious manner.

I have ſaid, that bleeding is proper on account of ſwellings in the legs, occaſioned by greaſe, provided it be uſed in the beginning, and before they are too much inflamed, by reaſon this diſtemper at firſt chiefly proceeds from a ſtagnation or undue circulation of the blood in theſe extreme parts, where the ſame loſes a great deal of its force, by reaſon of the ſmallneſs of the veſſels, and the diſtance from the heart: And I could make it appear that this undue circulation is moſtly the cauſe of the greaſe, which is contrary to the notions of former writers, who imagined that in ſuch caſes the blood was full of impurities and corruption, as they idly term it.

Fourthly, Bleeding is requiſite in any violent pains, inward or outward, or, as the phyſicians write, internal or external, as wounds or bruifes, and pain and inflammation of the lungs or *pleura*, which is the noble and ſenſible membrane that covers all the cavity of the *thorax*, or cheſt in horſes; or in inflammations of the liver, when they can be diſcovered; and I ſhall do my beſt to inform the reader, how he may diſtinguiſh each:

of these kinds of inflammations, when I come to treat of the distempers of the breast. Though, notwithstanding what some gentlemen have writ about pains in the stomach, lungs, liver, pancreas or sweet-bread, and the like, I must own it a very difficult task to discover the seat of internal pains in horses.

Fifthly, Bleeding is proper, in most, if not all, disorders of the head; such as *Vertigo's*, commonly called the staggers in horses; and in the first state or beginning of colds, by which defluxions of rheum are apt to fall upon the lungs, and oftentimes the eyes. Several former authors forbid bleeding in the diseases of the eyes, particularly the *Sieur de Solleysell*, who no doubt has made the remark from his having seen some ill effects of it in such distempers: But the question is, whether this gentleman formed a right judgment of particular cases, and duly weighed and considered all the symptoms together? For if a horse be lean and out of order, that is, when the state of the blood is very low and poor, and the heart scarce able to drive it round the horse's body, why, then indeed it is most likely to stagnate or stop in the extremities and small capillary or hair-like blood-vessels; because the succeeding fluid is destitute of force to impel or drive forward the antecedent part of the blood: And this no doubt is true doctrine, since by

taking blood away, we take away from its force or *momentum*, which in the case described is already too small, and therefore bleeding may sometimes (as Solleysell has observed) occasion disorders of the eyes, if not absolute and total blindness. But then in all overfulness of the vessels, from hard riding, or from whatever cause, which drives the blood into the extremities faster than it can be returned by the small capillary vessels, or if the state of the blood be too viscid and clammy, by which means it loiters in the small vessels of the eye-lids or body of the eyes, bleeding must then be of service; and from the same theory it may be proper in the *farcin*, and other diseases of the skin.

Lastly, The horse's age should be considered: For a young horse, though he be more subject to diseases than an old hardened stager, yet he will sooner recover the loss of his blood; and in my opinion, a horse in the prime of his years, will of all ages withstand such evacuation best: But as to regulating when and at what age a horse may be said to be in his prime, is very uncertain, and must only be learned from such and such breeds of horses; for, there is (to my own knowledge) as much difference in this particular with relation to the prime of age in horses, as there is in man, and there are as long-lived, stout and hardy generations (comparatively speaking)

amongst these creatures, as amongst mankind; and, on the contrary, some are old whilst they are yet young, if I may be allowed the expression.

The reason why a horse is not subject to sickness and faintings during the operation of bleeding, is because of his prone and horizontal posture, which does not require so strong a systol or contraction of the heart, in order to throw the blood round the body, as it would if in a perpendicular situation. This is plain to any one who has the least notion of mechanics; and for the same reason a man will lose twice the quantity of blood lying upon a bed or couch, without being sick, that he can in an upright posture; which truth was well known to our famous Sydenham, although this great and faithful observer was very much wanting in mathematical and mechanical knowledge, so that he could not share the real pleasures of those who have a *Why for a wherefore.*

Rules for purging.

Purging, I say then, is brought about by such medicines, which by their irritation provoke and stimulate the membranes of the stomach and guts, whereby the *peristaltic* or *vermicular* motion of the latter is quickened, so as to shake or throw off their contents:

But if the dose happens to be too large, or abounds much with resinous particles, which of all are most pricking and stimulating, or (to speak after the common way) if very strong physic be given, it not only carries off what is contained in the stomach and guts, but likewise causes such reiterated and frequent twitches, as derive a more than ordinary quantity of blood and spirits into those parts, whence is separated and discharged a-bundance of the *serum* or watery part of the blood, by the common passages. And from hence it is evident, that a medicine may be so contrived, as to carry off more or less of the substance of the blood, according as the dose is increased or diminished, or as it abounds more or less with purging particles, and consequently may be rendered profitable or hurtful.

It is needless to detain the reader with the manner of preparing the body for this operation; neither shall I lay down rules for rendering this or that sort of humour fit for a discharge by medicines, which have, with much industry and more ignorance, been devised to prepare choler, phlegm, melancholy, and the like whimsical, imagined humours; that sort of practice being now justly exploded as ridiculous and uncertain; since it is plain, that all kinds of purging medicines differ only in degrees of strength,

and operate no otherwise upon different humours, than as they stimulate more or less, and either work no farther than the *prima viæ*, or first passages, or else cause a discharge from the parts more remote from their scene of action, which principally lies in the stomach and guts. And what particular regard is to be had to the different kinds of purging medicines will, I hope, be sufficiently shewn to the readers satisfaction, when I come to treat of distempers which may demand purging. And therefore at present, I I shall lay down some general directions, which may be of use to all those gentlemen who keep valuable horses. And,

First, I say, purging is necessary in most or all plethoric cases, when there is a redundancy of blood; but the horse should first of all be bled to render his body cool and light-some: For, if he be purged when his body is full, it may (unless the other secretions are free, I mean the discharges by urine, &c.) occasion (during the operation) a too great hurry in the motion of the blood, or by driving or forcing off too great a quantity of blood, &c. into the intestines or guts, an inflammation may ensue. And for this reason it is judged proper that those horses which are plethoric, or full of blood, should only have mild and easy working purges given them.

Secondly, Purging may be allowable in dis-

orders of the stomach, before other things are administred, and this, because a horse can seldom or perhaps never disgorge himself by vomit.

Thirdly, It is proper in all foulnesses of the guts, for driving out all viscid and slimy matter, and particularly when a horse is troubled with worms, provided the purge consists of such ingredients as I shall hereafter mention, when I come to treat of this common, though troublesome reptile, which afflicts most horses sooner or later. And furthermore, purging may be necessary in costiveness, and in several kinds of *diarrhæas* or loosenesses of the belly; but these likewise must consist of well adapted ingredients, viz. such as, after purging in a gentle and easy manner, constringe or leave a binding quality behind them, so as to shut up, in some sort, the excretory ducts of the intestinal glands: Yet great care must be taken in this matter, lest by improper purges, the glands should be so relaxed as to bring on an inflammation of the guts, by the two violent operation of the medicine.

Fourthly, and *lastly*, I recommend purging as useful in gross habits, where there is any tendency to swelling of the limbs, or any other part of the body; in humid and watry diseases; in disorders of the liver, causing the jaundice or yellows in horses; in diseases

of the eyes and head, where there is not any fever, but only a stagnation of the blood in some of the small capillary or hair-like vessels; for purging, in such cases, not only drains off part of the superabundant matter, but also (by putting the blood in a brisker motion) causes a separation of its grosser parts; so that it moves with more ease and freedom through all its canals, and by this means is brought more readily to the secretory offices, or particular outlets, designed by nature to throw off the extremititious parts of nourishment.

I must not, however, close this subject, without acquainting the reader, that in bleeding and purging a particular regard must be had to the strength of every horse; by reason (in the last case) the irritation, or pricking and convulsive twitching, which many kinds of purges occasion, (during their operation,) brings on 'great sickness, convulsive motions of the body, damp sweats, &c. which 'too often end in death.'

A horse is with much more difficulty purged than a man, because of their prone or horizontal posture, which helps nothing towards forwarding the medicine; therefore the physic lies mostly twenty-four hours in his guts, before it operates. And, for the most part, the purges given to horses consist of such things as are of a resinous quality,

and these, of all other, are most subject to cause violent gripings, cold sweats, &c. for, as they are ordered mostly without any mixture to qualify this property, it is much, so many horses get through their physic every spring: And I rather attribute it to the strength of the horse's constitution, than to any good judgment in the farriers, or common keepers of galloping horses. For there is no doubt, in the least, but the same general rule will hold good in purging horses, as it does in men; I mean, the *Idiosyncrasy* of bodies is to be first (as much as may be) studied amongst these creatures: And this knowledge of the peculiar temperament or disposition of this or that horse, with relation to his being easily or difficultly wrought upon by any kind of medicines, will, I am convinced, be the greatest guide a farrier can follow. And this disposition may, in some measure, be learned from the horse's constructure or make, the firmness of his flesh, &c. for those horses which are kept at hard meat a long time together, and get pretty well of exercise along with it, are (it is very well known) most difficultly purged, by reason they have fewer juices to work upon, than a gross fat horse, who has little or no exercise.

I have given these loose hints about bleeding and purging, before I enter into a dis-

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course of the distempers incident to horses, as the same was necessary to be considered by all farriers, and is, or ought to be, one of the fundamentals of their practice. I mean this, viz. that every farrier should rightly and duly weigh each and every symptom or token of sickness in a horse, and consider well whether he requires bleeding, or purging, or both; and not (as is too common) strike his fleams into his neck, or toss a purge into his stomach, *hab nab*, at random, which may very likely go near to kill him, when performed without due caution.

Observations on a horse, as to the brain, sinews, veins, relating to health, strength, &c.

He that will be expert in ordering a horse, must not be unskilful in knowing the parts from whence defects and diseases chiefly arise; the most material I shall briefly enumerate:

First, Consider the seat of life to be in the brain, heart, and liver, from whence it contributes to, and disposes every member, and for that cause those are called the three principal members; to which, some would add a fourth, viz. the stones; but that addition by the wisest practitioners has been rejected; because, if taken away, life still remains, which it is impossible to do, if any of the other be removed.

Secondly, The sinews, which are these, viz. two white sinews or tendons, beginning at the nose, and passing through the neck and back, branch into the fore-legs, and end in the hinder-legs, taking their ligaments in all the four feet. Two sinews called the main sinews, which descend from the brain, and passing down the cheeks, fasten the jaws. Three from the shoulder to the first joint of the arms or fore-legs, besides two other great sinews. Four great sinews from the knees to the pasterns, with the same number in the hinder part above. As well within as without the fore-part of the breast are ten sinews, small and great. From the reins of the back to the stones are four great sinews or ligaments, and another great sinew running to the end of the tail. To conclude, a horse has great and small twenty-nine; or, as some will have it, thirty.

Thirdly, The veins through which the blood circulate the whole body are many; yet seeing they center in the liver, the seat and foundation of blood distributing it into every part, divers are of opinion, that all other veins in the horse's body are but branches of the Median vein, proceeding directly from the liver, and whenever that is afflicted with wind, &c. has the blood corrupted in it, or is subject to any other infirmity, it

afflicts all at once the whole body of the horse.

Those branches that ascend to the head and upper parts of the body are called ascendants; and those that run down into the legs, and other parts of the body, descendants; and through these branches, sleeping and waking, the blood continues its course, ebbing and flowing, like the ocean, by the course of the moon.

The bones that frame a horse's body, their number, and how they are placed.

In the body of a horse, the bones, not accounting the teeth, which are visible, are thus numbered, viz.

His head bones, comprehending the crooks and handle of skull, although they are compiled of parts and parcels of other bones, likewise two flat handles, which from the pallat and fork, or throat, hath five. His breast-bone and his chine fifty-two other bones. His ribs, long and short, are thirty-six. His fore-legs and fore-feet contains forty-four. The hinder legs and feet, forty. So that the whole structure of the body of a horse, comprizing his teeth, consists of one hundred and seventy-seven bones.

Of the four humours in the body of a horse.

As fire, air, water, and earth produce and give life and nutriment to all living creatures, so the humours, viz. choler, blood, flegm, and melancholy, are the principal agitators in the bodies of all creatures, and, as it were compose, or at least preserve them; choler, by reason of its heat, being alluded to fire; flegm, by reason of moisture and coldness, to water; blood, by reason of its heat and moisture, to air; and melancholy, through its cold and dryness, to earth.

Choler has its seat near the liver, which, by reason of its heat and dryness, accords with the blood; which has its fountain in the liver, and from thence disperfeth itself through the body.

Flegm has its chief seat about the brain, which is a principal seat of life, and frequently afflicts, when out of temper, with rheums, colds, coughs, catarrhs, &c.

Melancholly has its seat about the spleen, being the gross and earthly part of the blood and choler. As for the offices and dispositions of these humours, they are four, viz.

Choler causeth concoction and avoiding of excrements; blood nourisheth the body; flegm gives motion to the joints; and me-

lancholy disposeth to appetite, creating a good stomach.

How to prepare a horse to receive medicines, if any distemper has seized him.

Observe twenty-four hours before you intend to administer the medicine (whether powder, pills, or drench, composed of simples, &c.) that you restrain him from eating hay or straw, or any hard meats not of easy digesture, thereby to hinder the operation of the physick; and for twelve hours before keep him fasting, for the emptiness of stomach gives a free operation to any purge, when fulness hinders greatly the working of any medicine, obstructing it, and thereby frequently injuring the horse, by turning the force of it on the vitals.

The safest meat to prepare him is either rye, or wheat-bran, mixed with white split-beans, wheat-flower mixed with white oats, and his drink warm-water, to which, dust a little fine bran.

What purgations with the least danger may be given to a horse.

The most effectual and gentlest purgations are pills; but it must be considered, as is said, according to the state of the horse's

body. And for example, to make the gentlest pills against pestilential or infectious diseases, Peel twenty cloves of garlic, bruise and well temper them with a pound of fresh butter, roll them up in balls as big as walnuts, give four or five of them, one after another, and if the contagion have not seized the heart, brain, or liver, it will work it out.

Approved rules to be observed by such as either travel or exercise horses, (for want of the due observation whereof many excellent horses have been lost,) through whereby they may be kept from sickness.

First, When your horse is lusty, pleasant and clear in body, then he is fit for labour, or any exercise; but if he be sad, heavy, or dejected in countenance, do not labour him until you have found the cause, and removed it. *Secondly*, Let not your horse eat any thing for two or three hours before you travel him, and then not much, until you come to your lodging; for baiting at noon is nought but hurtful, unless you rest four or five hours, so as that he may not travel upon a full stomach, and let his bit be small; and be sure he never wear a rusty bit, or snaffle, for fear of the canker. *Thirdly*, Let your travel be moderate, except necessity (which cannot be limited) enforce it; then be sure not to let

your horse eat or drink till he be very cold; and if it be in winter time, be sure to cloath his head and breast very warm after your travel; and every morning either squirt a little vinegar into his nostrils, or else rub them with oil of bay, with a cloth anointed therewith, fastened to the end of a stick, and thrust up and down his nostrils to purify his head. *Fourthly*, Neither wash nor water your horse (especially in the winter-time) for when he is very hot, to walk him in the cold air is dangerous, and washing is a speedy preparative to bring him to some dangerous disease; for there is no desperate disease incident to a horse, but the same proceeds from the causes of too much heat or cold, and none more dangerous than this. *Fifthly*, When you travel, alight often from your horse, if necessity prevents not, and lead him to some place of grass, straw or brakes, and there stay and whistle until your horse piss, which he will hardly do, except it be in such places, because the sprinkling of his water will scald his legs. *Sixthly*, If your horse be very hot, let him not drink cold water, but rather at some house give him a quart of good beer, or a pint of wine; and if you do water him by the way, let him drink until he have washed his mouth, which is done when he thrusteth his head into the water, presently pull his head; which will cleanse his

mouth; and if you are forced to let him drink, ride him so that he may be sure to keep the same heat he was in before. *Seventhly*, After his labour, if you can have a convenient place, let him wallow himself, for it is no less delightful than comfortable to his body. *Eightly*, If he happen to fall sick in your travel, which proceeds commonly either from eating or drinking too much at a time, or otherwise, give him a pint of sack, or Malmsey, a quarter of a pint of *aqua-vita*, with sixpenny-worth of the best treacle; and a quarter of a pint of the best olive-oil, brew them well together, and give him a draught; and then take a new laid egg, and pull out his tongue, bruise the shell, and thrust it into his throat, and then let go his tongue; do this twice, then let him blood in the pallet of his mouth, and rub it well with salt, and afterwards order him as he should be in the stable.

*The order of curing horses that are diseased;
the causes, the signs, and the cures thereof.*

Of the ague or fever of horses.

THE learned do hold three general kinds:
First, When the vital spirits are inflamed, wherein heat is predominant more

than nature requireth. *Secondly*, When the humours are distempered by heat. *Thirdly*, When the firm parts of the body are continually hot, so that the ague cometh by the excessive heating of the horse, and thereupon a sudden cold, or by fulness of bad humours, which principally grow from foul, full and raw feeding, and too much rest; and for that reason it takes the horse either hot or cold, and keeps due hours to make him shake and tremble as a man; also we may know how the same appeareth from the inflammation of the stomach, which scaldeth and maketh the tongue raw; there are other causes, viz. by spare feeding, not clean feeding, dry feeding, and for want of moderate labour. The cure shall be when you perceive his dejected countenance and his beginning to tremble, force him into a heat, and put into him an ounce of aloes beaten small, of Agarick half an ounce, of liquorish and anniseeds half a dram, and some honey warmed a little on the fire; then ride him until he be hot, and let him sweat moderately in the stable, and take a special care of him; wash his tongue with atom-water, vinegar and sage, and give him sweet straw to eat, and a gallon of old sweet oats; at night give him a good mash, and the next night after let him bleed a quart; and if his blood be very thick, dark, or yellow, let him bleed two quarts, and after-

wards give him warm-water to drink, and a little salad-oil in it, if he will drink it.

Another of the same.

Let him blood; take of germander four ounces, of gum-dragouet, and of dead roses, each an ounce; or of olive four ounces; put them into a quart of strong ale, and give it warm to the horse to drink; then ride him until he sweat, and cloath him, and keep him warm, as aforesaid.

Of the ague in the head.

The cause of this disease proceeds either from cold, or taking of too much heat, or of a raw imperfect digestion of the stomach, which proceeds principally also from full and foul feeding; for betwixt the stomach and the brain is such an affinity, as that they do equally communicate their damages. The signs are these, in hanging down of his head his eyes will swell and run with water, and he will forsake his meat. The cure is, to let him blood in the pallet of his mouth, and rub it with salt to make it bleed well; then take a stick with a linnen-cloth fastened to the end of it, well anointed with the oil of bay, thrust it up and down his nostrils, thereby to open and purge his head. Also per-

fume him with the smoke of garlic stalks broken into small pieces. Also air him with the smoke of frankincense, holding the same in a chaffing-dish under his nostrils, with a great cloth cast over his head; and let it be done morning and evening. Keep him with spare diet and moderate exercise, which will cleanse his stomach, and make it empty, then his brain will not be disquieted. Afterwards let him blood; and give him good mashes to drink for two days, and no cold water. As I shall write down the causes of some diseases that are most unknown to the people, so for those that they are so well acquainted with, I shall only set down the cures.

Of the sudden sickness of a horse.

The cause is, for that the heart, which is the chariot of life, wherein the soul of the horse liveth, wanting the use of the veins and arteries, to carry the vital spirit of heat to all the parts of the body, to give the horse feeling and ability to operation, by reason of some obstructions of humours and cold, which, for want of heat, cannot be dissolved; for that the nature of cold is to bind and conglutinate together, and keep them from their natural course, proceeding from some violent exercise, and immoderate feeling and rest. The sign is, the sudden dejection of

his countenance. The cure is, to let him bleed on both sides of the breast, next the heart, whereby the veins and arteries being evacuated and emptied, they may begin to do that office whereunto nature hath appointed them. Let him bleed the quantity of two quarts, then give him a comfortable drink, to stir up the vital spirits to action, viz. take a quart of the best sack, and burn it with grains, cloves and cinnamon, and a quarter of a pound of the best sugar, and burn it all together with half a pint of fallad-oil, and four pennyworth of the best treacle; then ride him very gently until he begin to sweat, and so turn him into the stable, and then let him stand six meats, but beware you do for him there according to your direction; and be sure you cloath him not too warm, for the drink will thoroughly warm him, and make him sweat; let his drink be warm-water, wherein boil mallows, and a handful of water-creffes, of fennel and parslly-seed, of each an ounce; and twice in a morning or evening, when he is most fasting, ride him gently a mile or two.

Of a horse that cannot piss.

Take a pint of white vinegar, half a pound of gemgree, bruise it small, and wring out the juice, take a handful of fennel, a hand-

ful of fox-gloves, the leaves or the flowers; two ounces of grommel-seed, and half a pint of sweet honey, stamp them well together, and strain them into vinegar; let him stand without meat and drink twenty-four hours.

Of the pains of the head.

Take a pint of malmsey, five new-laid eggs, a head of bruised garlic, small pepper, cinnamon, and nutmeg, beaten fine, and give him to drink three days together, and let him fast five hours after.

To bring hair again.

To bring hair again, take the dung of goats, some honey and allum, and the blood of a hog, boil them together, and being hot, rub the place therewith.

Of the stone and cholic in a horse.

Take a pint of white-wine, half a pint of bur-seed, and beat them small, two ounces of parslly-seed, half a handful of water-creses, half an ounce of black-soap, and mingle them together, stamp and strain them, but put the bur-seed and parslly-seed to it, after it is strained, and then warm it, and give it him to drink.

*Of a horse that stumbleth, which is called
the cords.*

The cord is a finew that breedeth amongst the finews, the one end cometh down to the shankle-vein, and so up through the leg, goeth over the inner side of the knee, and so over the shoulder and along the neck by the weasand, and it goeth over the temples under the eye, down over the snout, betwixt both the nostrils and the gristle, there knit the length of an almond; take a sharp knife and cut a slit even at the top of his nose, just with the point of the gristle; open the slit, and you will perceive a white string, take it up with a boar's tooth, or a buck's horn, that is crooked, or some crooked bodkin, and twine it about the strait, and cut it a-funder, you may twine it so much as that you may rear his foot from the ground, and then stitch up the slit, and anoint it with butter, and the horse doubtless will be cured.

Of the canker.

The cure is, let him blood abundantly in the veins that is next to the fore, then take of allum one pound, of white coperas a quartern, and a good handful of salt, boil them together in fair running water, from a bottle

to a quart; this water being warm, put part thereof into a dish, and with a clout wash the same until it begin for to bleed, and let it dry; then take of black-soap one pound, and of quick-silver half an ounce, and incorporate them till the quick-silver be not seen, and always after you have washed the same, with a slice cover the ulcer with the medicine till it be whole; but be sure still to let the blood be about the ulcer for many days together; and when it is killed, then cast upon it the powder of unslacked lime, or of brimstone.

Of the farcin.

This ulcer is not unknown to any that have enjoyed horses, and yet unknown almost to all; I mean the true cause of this disease and the cure; some say it is a corruption of blood, some an outward hurt, as of spur-galling, biting of ticks, hogs-lice, or such like; some say an infirmity bred in the breast near the heart, and in the side vessels and cod, near the stone, many evil humours congealed together, which afterwards disperse themselves into the thighs, and sometimes into the head, and do send forth watery humours into the nostrils, and then is called the running farcin. Indeed, if the true cause of a disease be known, the disease itself is easily

cured. The manage, the leprosy, and this disease of the farcin, are most pernicious to a horse, for oftentimes it falleth out, that many horses infected therewith, though they live, and the disease seemeth to be healed, yet they are rendered of small or no use. For my part, I conjecture the cause of this disease grows either from abundance of bad blood, or by a great distemper of the blood, through a violent heat, changed into a sudden cold. To cure this distemper, first let him blood on both sides of the neck, three quarts at least, for it is certain that the loins, which is then the fountain of all blood is corrupted, and so sendeth the fume into every part of the body, as to become loathsome to behold. Then give him this drink; take a gallon of fair water, put into it a good handful of rue, a good spoonful of hemp-seed, and a handful of the inner rind of green elder, bruise them in a mortar together, and seath it till it be half consumed, and being cold, give it him to drink. Evermore continue to let him blood in the vein which is nearest to the sore place, a great quantity, as you see occasion; let his diet be thin, but very clean and sweet; then take the following approved medicine, which, though the disease be never so foul, it will undoubtedly cure it. Take of herb-grace a handful, featherfew a handful, of chickweed of the house a handful, of kiswood

a handful, of heart-Robert a handful, keep the residue thereof in a pipkin close covered in the earth, stop the mouth thereof close with herbgrace and dock-leaves, and a great turf laid upon it, that no air come in, and every third day untye his ears and dress it, and so continue it till all the facine be dead; for undoubtedly at three or four dressings it will kill it : wash all the herbs so clean that no dirt nor filth be on them. Boil chamberlye and bay-salt, with a little copperas and strong nettles to wash the sores, if need be; but beware of burning them either with fire or other corrosives ; for although it may kill the ulcer, yet being dispersed, it will burn and scorch the horse's skin ; for burning doth purse the skin, and maketh it run together, so as the horse will never after prosper. I would have you get cases of leather, fastened to the head-stall, made hollow like the shape of a horse's ears, to make them lank eared, which thing the sadlers will help you in ; for many times, by long binding the ears are spoiled, so as they must be cut off. After that you see the filthy ulcer killed and dead, yet you must know whether the blood is purified or corrupted ; therefore you must at least let him blood, but always in several places ; and when you see the blood fine and pure, then give him some good scouring drink, a quart of white-wine, a quarter of

an ounce of rhubarb in very thin slices, and laid in steep all night; an ounce and a half of alloes in powder dissolved therein, half an ounce of agarick, an ounce of fenna steeped in the wine all night, and two ounces of syrup of roses; but the rhubarb, fenna, and ginger, take out of the wine before you put in the other simples, and then make it blood-warm, and give it the horse, and so let him rest all the day, giving him nothing but wheat-straw at night, and the next day following a bottle of sweet strong wirt, and a quarter of a pint of treacle, and keep him warm. After all this, wash all his body with black lye, and black soap, and after cloath him, and give him a sweat, and he will recover..

Of the fistula..

This is a filthy ulcer also, bred from some ulcer not thoroughly cured. The remedy is to search the depth thereof with a quill, or some other instrument of lead, for unless you find the bottom it is hard to cure, and having found the bottom, if it be in a place where you may cut with a razor, make a slit against the bottom, so wide that you may boldly thrust in your finger, to feel if any bone or gristle be perished, or spungy, or loose flesh, which must be gotten out, then boil a quartern of honey, and an ounce of

verdegrease in powder, stirring it continually till it look red, then tent therewith, and bolster with flax that it get not out; but if the place be where the tent cannot conveniently be kept in, fasten to each side of the whole a shoe-maker's thread over the bolster, to keep the tent in, renewing it every day until it leave mattering, and make the tent lesser and lesser, and sprinkle thereon a little slack lime. But if you cannot come to tent it to the bottom, then take strong lye, honey, roch-allum, mercury, and seeth them together, and apply them to the bottom of the fistula. If the fistula be in the head, take the juice of house-leek, and dip a lock of wool in it, and put the same in his ears, and use it every day till it be whole.

These infirmities are cured by the following medicine; all broken bones, all bones out of joint, swaying of the back, weakness in the back, horse-hipped, horse stifled.

The bones being placed in their true and proper places, according to the form of the number, you shall first bathe the grieved place with warm patch grease or piece grease, then clap about it a binding plaister of pitch, rosin, mastick and salad-oil well mixed together, and molten on the fire; then fold the limb hard about with fine flax, and split

it with broad, flat, strong, and soft splints, and remove not the dressing for the space of fifteen days, except that you find the rowlers to slacken, which is a very good sign, and then you may strain them again; or if you find the member to increase in swelling, and that the rowlers grow straiter and straiter, then you may give the member ease, for it is a sign that it was rowled too strait before; and thus you shall dress it but twice in thirty days, or thereabouts, in which time the bones will be knit; but if through the breach of dislocation, you find any gross substance to appear about the grieved place, then you shall twice or thrice a day bathe it with patch-grease, and that will take away the eye-sore in a short space.

Of leprosy and universal manginess.

The horse that is infected with this disease, will be full of scabs, rawness, and scurvy, and continually scratching. The cure is, first for to let him blood on one side of the neck, and give him a quart of new milk, and half a handful of the finest powder of brimstone, thoroughly strained together, for that will expel the manage, in all his provender and mashes, continued for five or six days, give him brimstone and hot grains; but if he will not eat it, give it him with

milk and new ale-wort. Then the next day let him bleed on the other side of the neck, at each time a good quantity; within two days after let him bleed in the breast veins; within the other two days in the flank veins; within two days after under the tail, so as that he becometh weak therewith. Keep his blood in a pail, then seeth chamber-lye and bay-salt together, and let it be strong of the salt; then take a quantity of the blood and stir them together, that the same be thick, and let him be rubbed all over with a pease-wisp when he is hot, and let it dry upon him as much as may be, and the next day more of the same upon the old, that it may be as it were plaistered with the same; the which being done in the sun, will easily be performed. After he hath rested upon the same two days, take buckly and black soap, being very warm, and wash all his body, and give him a quart of sack, and half a pint of the best treacle to drink; anoint his body with the same ointment in every place. Take lamp-oil a quart, fine powder of brimstone, and a pint of the best treacle to drink, and anoint his body with this ointment in every place.

Of the running of the frush.

The cure is, pare away the corrupt places, until you see it raw, and where the issue is,

then take a handful of foot, and as much salt, and the white of three eggs, and beat them together, and having made the shoe hollow, and taken on, stop the feet therewith very hard, and renew it every day for seven days, and let not the horse touch any wet; and when he is whole, be sure after travel to keep that foot clean from the gravel.

To make a horse that he shall not neigh.

Tye a woollen list about the middle of his tongue, and he shall not neigh so long as it remaineth.

To ripen an imposthume.

Take mallow-roots, and lilly-root, and bruse them, and put them into hogs-grease, and lintseed-meal, and lay a plaister of the same.

Of a farcine, or sudden breaking-out in any part of the body.

Take this ointment, and have it ready in your stable: Three ounces of quick-silver, put it into a bladder, and two spoonfuls of the juice of lemons and oranges, shake them together, then take a pound of grease, and of verjuice an ounce, beat them all in a dish,

and work them thoroughly together, and take a pound of fresh hogs-grease, and anoint the same therewith, and slit the same, if need be, then wash it, and put into his ears the juice of ruge-weed.

Of sinking a fistula, or windgall.

First sear the fistula, and then take rozen, sheeps-tallow and brimstone, boil them together, lay it on with a cloth, and it will sink down.

Of a wrench in the fetter-lock, or any other joint that is suddenly done.

Take of narvile and black-soap, and boil them together a little on the fire, and anoint it therewith.

Of a blister.

Take the juice of ground-ivy, so much brimstone, a quantity of tar, some allum, and lay it to the blister.

Of a wind-gall, that it shall not grow again.

When you have cut the skin, take a spoonful of oil de bay, a spoonful of turpentine, one pennyworth of verdigrease, the white of an egg, and a quarter of an ounce of red-lead,

boil them together to a salve, and lay the same to the place.

Of curing a sudden hurt.

Take wax, turpentine, rozen, and hogs-grease the like quantity, and half so much tar as any of the other simples, melt and boil them together, and keep it ready for any accident; lay it plaister-wise.

Of the dangerous galling of a horse.

Take a pottle of verjuice, two pennyworth of green coperas, boil it into a pint and a half, wash and sear the hole therewith, and fill it with red-lead; so let it remain three days untouched, then wash it with the same, and fill it with red-lead; this will heal it, though it be galled to the body.

Repairing a broken hoof, to make it grow.

Take of garlick-heads seven ounces, of herbgrace three handfuls, of allum beaten and sifted, of barrow-grease that is old two pound, mingle all these with a handful of asses-dung, and boil them together, and anoint the horse therewith.

K

Of fretting of the guts.

Take in a morning a quart of good ale, four ounces of fenugreek, seven ounces of bay-berries, as much long-pepper, and an ounce of ginger, two handfuls of water-creses, a handful of sage, another of mint, beat them all together in the ale; then strain it, and give it him blood-warm; rope all his legs, and tye them that he lye not down, put him into a sweat, keep him warm, give him no cold-water for three days after, and feed him with dry beans and oats for his provender.

To make a horse follow his master.

Take one pound of oat-meal, a quarter of a pound of honey, half a pound of lummary, and make a bag thereof, and bear it about you next your skin, and labour therewith till you sweat, and wipe the sweat with the bag, and keep the horse a day and night fasting, and give it him to eat, and also use to give him meat and bran, and he will follow you.

Of bones out of joint.

The cure is, bind all the four legs together, and so cast him on his back, and then hoist him from the ground with his heels upwards, so shall the weight of his body cause the joint to shoot in again in its place.

Of pulling out shivers or thorns, and of swelling.

The cure is, to pull it out if it may be seen; but if it swell and cannot, then take wormwood, paretory, bears-foot, hogs-grease and honey, boil them together, and being hot make a plaister; it is excellent for any swelling, so also is wine-lees, wheat-flower, and cummin, boiled together; and when it is at a head launce it.

Of spungy wrats.

The cure is, if it be long enough, to tye a thread about it very hard, and it will eat it off, or else take it off with a hot iron.

Of the sinews cut and bruised.

Take of tar, bean-flower, and oil of roses, and lay it hot to the place. Of the same effect are worms and falled-oil fryed together. So is the ointment of worms, which you may have at the apothecaries.

Of the curb.

This is commonly known; the cure is, take a pint of wine-lees, a porringer of wheat-flower, of cummin half an ounce, and stir them well together, and being warm charge

the fore place therewith, running it every day once, for the space of three or four days; and when the swelling is almost gone, then draw it with a hot iron, and cover the burning with pitch and rosin molten together, and laid on warm, and clap on socks of his own colour, and let him rest, and come in no water for the space of twelve days.

Of wind-galls in horses.

This grief most men know. The cure is, wash the places with warm-water, and shave off the hair, then draw it with a hot iron in this maner Γ ; that done, slit the middle line which passes right down through the wind-gall with a sharp knife, beginning beneath, and so upwards, half an inch, and thrust the jelly out; then take also pitch and rosin molten together, lay them on hot, and socks upon them.

Of the pipes, or crutches in horses.

This is a frettish, waterish matter, bred in the pasterns of the hinder-legs, sometimes by foul keeping, but principally of liquid and thin humours resorting to the joint, whereby the legs will be swollen, hot, and scabby. The cure is, to wash away the pasterns with beer and butter, which being dry, clip away all the hair, saving the fetter-lock,

then take turpentine, hogs-grease and honey, of each a like quantity, mingle them in a pot, and put unto them a little bole-army, the yoks of two eggs, and as much wheat-flower as will thicken them; then with a slice lay it on a cloth, make it fast to go round about the pastern; and bind it fast, renewing it every day; let him not come in any wet, but stand still; some will wash it only in gun-powder and vinegar.

The gravelling of horses.

The cure is, to pair his hoof, and get out the gravel, then stop it with turpentine and hogs-grease, melted hot, and then with tow, but beware he come not out of the stable till he be well.

The ring-bone in horses.

This is a gristle growing about the corners of the feet. The cure is, to fire the sore with the right loins from the pastern to the coffin of the hoof, thus, I I I and let the edge of the drawing-iron be as thick as the back of a thick knife, burn it so deep that the skin may look yellow, then cover it with pitch and rosin melted together, and lay thereto flocks of the horse's colour. Some will eat it away with the corrosives, as the splent,

Of the crown-scab.

This is a filthy stinking scab, growing about the corners of the hoofs; the hair will stare like hogs-bristles, and be always mattering, anoint when the hair is shaven away, with the ointment page 76, and keep it from wet.

These infirmities are cured by the following medicines, viz. splints, spavins, curbs, ring-bones, quinter-bones, and all other boney excreffions.

Take white-wine, arsnic, or mercury, ground to powder, make a little slit upon the head or the excreffion, the length of a barley-corn down to the bones; then raise up the skin with a fine corner, and put in as much arsnic or mercury as will lye upon three half-pence, then bind upon the fore a little hard flax hurds; then tye up the horse's head to the rack, so as he may not bite the fore place, and let him stand for the space of two or three hours, for in that time the anguish will be gone, and the medicine have done working; then put the horse to his meat, either in the house or abroad. And if the concreffion will fall away of itself, you may heal up the fore:

*Of the retreat, or clogging the foot with the
prick of a nail.*

The cure is turpentine, wax, and sheeps-
fuet, molten together, and poured into it
melted and hot.

Of surbaiting.

The cure is, take off his shoes, and make
his feet very clean, but pare no hoof away,
then tack a hollow shoe on, and take half a
pound of the fword of bacon, a quarter of a
pound of white-soap, of burnet and bay-
leaves, each a handful, and four or five bran-
ches of the herbgrace, stamp them well, and
fry them, lay them to his feet as hot as you
can, both under and over the foot, and keep
them dry, renewing the dressing as you find
occasion, four or five times till it be perfected.

*Instructions on giving of fire, or using corrosives,
which heals all sorts of farcies, cankers, fistu-
las, leprofies, mangies, scabs, &c.*

There are two ways to give fire, the one
actual, and the other potential? the first is
done by medicine, either corrosive, putre-
factive, or cultic. The actual fire stoppeth
the corruption of members, and stancheth
blood, provided the sinews, cords and liga-

ments be not touched ; the best instruments to cauterize, or sear with, are of gold or silver, the next are of copper, the worst is iron. The potential fires are medicines, corrosive, putrefactive, or caustic, (as we said before) ; corrosive are simple or compound, the simple corrosives are roch-allum burnt and unburnt, red coral, mercury sublimed, &c. The compound unguentum apostolorum, unguentum æpytiacum, and unguentum corioeum, with others. Medicines putrefactive, are your arsenic, resalstar, chriscolo, and aconitum. Medicines which are caustic, are strong lye, lime, virriol, aqua-fortis, and the like. Corrosive are weaker than putrefactives, and putrefactives are weaker than caustics. Corrosives work in the soft flesh, putrefactives in the hard, and caustics break the sound skin. Thus you see the use of these things, you may apply them at your pleasure ; for these cure all sorts of farcies, cankers, fistulas, leprosy, mangies, scabs, and such like poisonous infections.

Of a horse that is pricked in the foot with a nail, &c.

The cure is, cut the mouth of the hole where the prick is, as broad as a two-penny piece ; and search it clean, for else it may prove very dangerous ; for remedy take a

handful of red nettles, beat them in a mortar; put thereto a spoonful of red vinegar, and a spoonful of black-soap, and three spoonfuls of boars-grease, or salt bacon, beat them all together, and make a salve of it, and thrust as much into the sore as you can, to stop it from falling out; let it take no wet, and it shall never rot farther.

Of the quitter-bone.

This is a breaking out of the top of the corner of the hoof, commonly on the inside, and it comes by pricking or gravelling; it will break forth with matter, or a little deep hole like a thistle. The cure is, to burn it about with a hot iron, then take arsenic the quantity of a bean, beaten into fine powder, and put into the bottom of the hole with a quill; stop the mouth of the hole close with tow, and bind it so that the horse may not come at it with his mouth, and so let him rest that day: The next day, if the hole look black, it is a very good sign; then put a tent of tow, and cover it with a bolster of tow dipt in that ointment; continue it till you have gotten out all that core, and see whether the loose gristle in the bottom be uncovered, and feel with your finger, or a quill, if you be nigh it, and if you be, raise it with a crooked instrument, pull it out with a pair of nip-

pers, and then tent it with the said ointment, and after take honey and verdegrease boiled together till it is red, and heal it therewith, laid upon tow. Take heed that it heal not too soon, or close up too suddenly.

Of the hoof-bound.

This is a shrinking together of the whole coffin of the hoof, whereby the tuel of the foot, which is inclosed in the same, and especially after travel; and if you knock them, they will sound a little like to an empty bottle, and if both feet be not bound you shall apparently see the hoof that is bound to be less than the other. This proceeds from suffering the feet to remain dry after great travel. This distemper is also common with fennets or ass' hoofs, for that only wrinkleth and waxeth brittle, and by reason of the breadth and shallowness of the hoof, it cannot inclose the tuel of the foot, to strengthen it, yet it is the worst hoof. The cure is, to open the feet in the quarters very much, so that you may well lay your thumb betwixt the frush of the foot and the end of the coffin, where it principally bindeth; then raise both the quarters of the hoof with a drawer from the cornet unto the sole of the foot, so deep, as you see the dew come out, and also two races of each side; then open the foot within, and

let him bleed in the toes; if he be old, the blood will be cold almost as water, for that it hath not been fed with blood wherein the vital spirit is; and that is the cause of the coldness, whereby it appears that the hoof hath not prospered, but starved, for you shall see the frush and all the sole of the foot shrunk up and starved; then take away the sole of the foot, and stop it with nettles and salt bruised gently together, not over hard, renewing it once a day for nine days, and be sure every day twice to anoint the corner of the hoof; and after nine days end let his feet be stopt with bran and hogs-grease boiled together, bound too as hot as may be, but still anoint the hoof; and when you put him to grass, let him not wear any shoes, but put him into a marsh or meadow, deep of grass, whereby his feet will be always wet, and so enlarged again. Some ignorantly call this dry-foudering, when as all foudering in that foot proceed from the descending of the humours to the feet, and this is clean contrary; and my experience hath cured horses that have been hoof-bound four or five years.

Of the loosening of the hoof.

This grief, if it be loose round about the hoof, cometh by foudering; if it be in part, then by some other anguish. If it come by

foundering, then it will first break in the forepart of the cornet, against the toe ; but if a channel-nail or prick, then the hoof will loosen equally round ; but if other hurts, then right about the grieved part, which should be well observed of the farrier ; but what cause soever it is, be you careful to keep open the hole in the bottom of the foot, and restrain it above with the restrictive plaister of bole-armony, bean-flower and eggs, mentioned in the cure of the prick in the foot. You may take three spoonfuls of tar, a quarter of a pound of rosin, half a handful of tansy, a handful of rue, a handful of mint, and as much southernwood, beat them together with a pound of butter, and a penny-worth of virgin-wax, and so make a plaister, and bind it too for seven days, and it will be whole.

Of the casting the hoof.

The cure is, take turpentine a pound, tar half a pint, of unwrought wax half a pound, of falled oil half a pint ; boil all these together, until they be thoroughly incorporated, then make a boot of leather with a strong sole, fit for a horse's foot, to be buckled about the pastern ; then take a good quantity of flax or tar, and lay this salve upon it to cover the foot, so as that the boot may not

any way grieve the horse, renewing it every day till it be whole; then let him stand in the stable upon a bed of cow-dung and snails beaten together, which will encrease the same for fifteen days; then put him to grass. This ointment should be in readiness to anoint the horses.

For hurts upon the cornets of the hoofs; as an over-reach stub, or prick, &c.

Take first of soap and salt, of each a like quantity, mix them together like a paste; then having cut out the over-reach or hurt, and laid it plain, first wash it with urine and salt, or beer and salt, and with a cloth dry it, then bind on the mixed soap and salt, renewing it once in twenty-four hours; and this do, if the wound be great, for three or four days; then having drawn out all the venom (as this salt will quickly do) take a spoonful or two of train-oil, and as much white-lead, and mix it together to a white salve, then spread that upon the sore, morning and evening until it be whole, which will be effected suddenly; for nothing doth dry up sooner, nor is more kindly and natural for the breeding of a new hoof than this, as you shall find by experience.

L

To help the furbating or soreness of the feet.

When you find your horse to be furbated, presently clap on each of his fore-feet two new-laid eggs, and crush them therein; then upon the top of them lay good cow-dung; then stop them for four hours, and he will recover.

Of the dry-spavin.

The cure is, to wash it with warm-water, and shave off the hair so far as the swelling is, then scarify the place that it bleed, and take twelve cantharides, uphorbium half a spoonful, break them into a powder, and boil them together with a little oil of bay; and being boiled hot, with feathers anoint the sore, and tie his tail from wiping it, and within an hour after set him in the stable, and tie him so that he lye not down that night, (for the rubbing off the medicine), and within a day after, anoint it with butter, for six days; then draw the sore place with an hot iron; take a sharp one like a bodkin somewhat bowing at the point, and so upward betwixt the skin and the flesh, and thrust it in at the nether end of the middle line; then anoint with turpentine and hogs-grease melted together, for nine days; but remember

that after this burning, you take up the master-vein, which is done thus : Cast the horse upon some straw, then having found the vein, mark well that part of the skin which covereth it, and pull it aside from the vein, with your left thumb, to the intent that you may slit it with a razor, without touching the vein, and cut no deeper than through the skin, and the longest way that the vein goeth, and not above an inch, then will the skin return again to the place over the vein ; with a cornet uncover the vein, and make it bare, thrust the cornet underneath it, and raise it up, and put a shoemaker's thread underneath, somewhat higher than the cornet standing, slit the vein long-ways that it may bleed ; and having bled, somewhat from above, then knit it with a sure knot somewhat above the slit, suffering it only to bleed from beneath, a great quantity ; then knit up the vein also beneath the slit with a sure knot ; then betwixt these two knots, cut the vein asunder where it was slit, and fill the hole with salt ; then lay on this charge : Take half a pound of pitch, a quarter of a pound of rosin, a quarter of a pint of tar, boil them, and being warm, anoint all the inside of the joint, clap on flocks of the horse-colour, and turn him to grass, till he be perfectly whole, and the hair grow again.

Of the wet or blood-spavin.

This disease also is commonly known, and some call it the thorough spavin, it is fed by a thin flexible humour, by the master vein. The cure is, to shave off the hair, and take up the vein in every part, as I shall describe in the cure of the bone-spavin, and then cut the vein asunder, and draw it with a hot iron, charge it, and put on the flocks, and it will perfectly heal and cure it.

For a wrench or a sprain.

Take a quart of brine, seath it till the scum arise, and then strain it, and put into it of tansie and mallows each a handful, honey a sawcer full, a quarter of a pound of sheeps-tallow, beat them together, and set them on the fire till they be well sodden, and then lay it hot to the taint and sew a cloth about it, and so let it rest five days; and if this prevail not, wash the place, and shave away the hair, saving the fetter-scarifie, and lay cantharides to it, and heal it at the splint.

Of a horse that is hipped.

The horse that is hipped, is when the hip-bone is out of the right place; it may come

by stripe, stretch, slipping, sliding or falling; he will go sideling, and the hip will fall lower than the other. The cure is speedily to take oil of bay, of dialthea, nerval, and swinesgrease, each half a pound, melt them together, stirring them continually till they be thoroughly mingled together, and anoint the fore place against the hair with this ointment every day, once a day for fifteen days together, and make the ointment to sink well into the flesh, by holding a broad bar-iron over the place anointed, to make it enter into the skin; and if at the end of those days it doth not mend, then slit a hole downward into the skin, an inch beneath the hip-bone; make the hole so wide that you may easily thrust in a rowel with your finger, and then with a little broad slice of iron loosen the skin from the flesh above the bone, and round about the same, so broad as the rowel may lye flat and plain betwixt the skin and the flesh; which rowel should be of soft calf-leather, with a hole in the midst like a ring, having a thread tyed to it, to pull out when you would cleanse the hole; and if the rowel be rowelled about with stocks full on, and anointed with the ointment of hogs-grease and turpentine boiled together, it will draw so much the more. That done, tent it with a long tent of flax dipt in turpentine, and hogs-grease, made warm, and so renew it daily for

fifteen days ; and before you dress him, walk him every day a quarter of an hour, and as he healeth, make the tent every day less than the other ; and as soon as he is whole draw a hot iron cross his loins of eight or nine inches long, right against the hip-bone, so as the rowlled place may be in the midst thereof ; and burn him no deeper, but so as the skin may look yellow ; then charge all the skin over the buttocks with this charge : Take of pitch one pound, rosin one pound, tar half a pint, boil them together, and being well warmed, spread it with a clout tied to a stick, and clap as many flocks on the horse as will stick, that he may travel the more at his own will.

Of stifling, and burts in the stiffer.

This is when the stifling-bone is removed from its right place ; but if it be not removed, then the horse is hurt, and not stifled. The cure is in all points like to the shoulder-plight, saving that the pins need not be so long, because the stifling-place is not so broad ; and standing in the stable, let him have a pastern with a ring upon his fore-leg, and thereto fasten a cord, which cord must go about his neck, and let it be so much strained as may bring his fore-leg forwarder than the other, to keep the bone from start-

ing out; but if it be but a hurt with some stripe or strain, then the bone will not stand out; but perhaps the place may be swoln, then anoint it with the ointment mentioned in the foregoing receipt, for fifteen days; then rowel him with a hemp rowel, and cleanse the horse every day, by running the rowel anointed with the said ointment.

Of wounds.

The cure is, take turpentine, mel rosarum, oil of roses, of each a quartern, and a little unwrought wax, melt them and stir them together continually; and so use the ointment or rowel, as occasion shall serve.

A receipt for any extraordinary cold, cough, or purfiness in a horse, (which the weak farriers call broken-winded.)

I will here set down the secrets of my knowledge, in some ready, easy and approved receipts, which I never found to fail. When you find your horse taken with any extream cold, or dry cough, or purfiness, you should take three quarters of an ounce of the conserve of elecampane, dissolve it in a pint and a half of the best sack, and so give it the horse with a horn in the morning fasting, and ride him a little after it; and this you may do di-

vers mornings together, until you perceive the infirmity decrease and waste away. The simple conserve of elecampane is of excellent use; it takes away any ordinary cold or stopping, it comforteth the lungs, enlargeth the wind, purgeth the head of all filthy matter, and dissolveth many other obstructions, yet is not the best conserve, nor worketh the best effect. If the infirmity be old and dangerous, or if there be any attainture in the lungs or liver, therefore, in that case, you shall fly to the compound conserve, which is made thus: Take the best candy-roots of elecampane that can be procured, and beat them in a mortar with syrup of colts-foot, till it be brought to a very thin substance, then with refined sugar thicken it, till it be reduced to the true body of a conserve; then keep it close in a gally-pot, and use it with sack. I have known by the daily use of this conserve, divers dry, and supposed incurable coughs, that have been taken away, together with the heating of the body, and the wind so enlarged, that although the motion was before swift, like the broken-winded, yet it doth come to a moderate and slow temper, and the dry cough which did accompany it, hath been quite gone. Now if you find any difficulty in making or proving the medicines before shewed, or that the infirmity not being great or dangerous, you may possibly think a me-

dicine of less force, and easier to compass, would accomplish it; then take of the syrup of colts-foot an ounce, of the fine powder of elecampane, of anniseeds and liquorice, each half an ounce, brown sugar-candy an ounce, divide it into two parts, with as much sweet butter as will suffice to work the former powders, and half the sugar-candy, and all the syrup into a stiff paste, then divide it into two or three balls, and roll them into a round form, or of the fashion of an egg, and after roll them all over in the other half of the sugar-candy, and then give the whole quantity at one time to the horse, in the manner of a pill, and give them in the morning fasting: Then ride the horse half an hour after the giving, and let him fast two hours at least after he cometh in; and let him be warm cloathed and stopped, and his limbs well rubbed, especially his head; let him by no means drink any cold-water, but so, as that he may have exercise after; and let his exercise be moderate, and not violent; let his hay be a little sprinkled with water, and his oats with beer and ale; as for the bread, it is of itself moist enough; and let his meat be generally well dusted, sifted or chipped, for nothing is more offensive to a horse than foulness. This you shall do several mornings till you find amendment, neither shall you spare any travel on occasion, but having medicine about

you, use it in your journey, for this doth not take away any thing to weaken nature, but adds to the force thereof.

For any dangerous bots, or maw-worms.

Take as much precipitate (which is mercury calcined) as will gently lye upon a silver two-pence, and lay it on a piece of sweet butter, almost as big as a hen's egg, in the manner of a pill; and then in the morning, fasting, the horse having stood on the muzzle or empty rack, if it be possible, or otherwise (if the extremity of the disease compel you) at any other time, draw forth the horse's tongue, and make him to swallow the pill; then chafe him a little up and down, and after set him up warm, making him fast full two hours after, and it will kill all manner of worms whatsoever; yet in the administration hereof, you must be very circumspect and careful, for in the precipitate there is a strong poisonous quality, so that by no means there must be taken more than is prescribed, except with great caution. Again, if you mix your precipitate with a little sweet butter, as much as a hasel-nut, before you lap it up in a great lump of butter, it will be the better, and allay much of the evil quality.

To heal or dry up any old ulcer or cancerous sore.

Take mastic, frankincense, cloves, green coperas and brimstone, of each a little quantity, of myrrh the double of the other; beat them all to a fine powder, then burn it on a chaffing dish of coals, but let it not flame; then as the smoke ariseth, take a handful of fine lint or tow, and hold it over the smoke, so that it may receive all the perfume thereof into it; then when it is well perfumed, put the lint into a close box, and so keep it. When you have occasion to use it, first wash the sore with urine, then dry it; and lastly, lay on some of this lint or tow; and thus do twice a day, and it is a speedy cure. And as this is sovereign for any horse, so it is for man also.

For sore-eyes in horses.

Take the shells of seven or eight eggs, and cleanse away from them the slime, then put those shells between two clean tiles, and so lay them on hot glowing embers, and cover them all over, and on every side, and so let them lye a good space, till that the shells be all dried, then take them up and beat the shells to very fine powder, then with a goose's quill blow this powder into the horse's eye that is offended with pin and web, film, or

any other of those distempers, and it is a certain cure; and thus do morning and evening. But if it be a watery or inflamed eye, for any bruise, stripe, or descending humour, then take a spoonful and a half of fine powder of white sugar-candy, and being mixt together with as much May-butter (if you can get it, or for want thereof, the best sweet butter) work both these powders into a gentle salve, and therewith anoint the horse's eye, morning, noon, and night, for it cleanseth, purgeth, comforteth, and cooleth.

For an old strain, or lameness in the joints.

Take boars-grease, bole-armaniac, black-soap, and nerve oil, of each a like quantity, boil them all together, and then apply it hot to the grief, rubbing and chaffing it in exceedingly, and also heating it very well, either with a hot brick-bat or fire-shovel: This do once a day until the pain be gone.

Of a back-sinew sprain, or any other sprain.

Take an ounce of turpentine, and two or three spoonfuls of aquavitæ, and heat them together in a bladder or other vessel, until they come to a perfect salve; then anoint the sprain very well therewith, and heat it either with a hot brick, or else with a bar of iron; and thus doing three or four times, it will take away the sprain.

For any desperate sprain in the shoulder, or other hidden parts, any fistula, pole-evil, or other imposthumation and swelling.

Take a large earthen vessel of a gallon, and almost fill it with the herb arsmart and brooklime, equal in quantity, and equally mixt; then put to them as much of the oldest and strongest urine as can be got as will cover the herb all over, and fill the vessel full; then cover the pot close with a stone, board, or such like thing, and so let it stand, for this can never be too old. Now when you have occasion to use it for any grief aforesaid, you shall take an earthen pipkin, and put thereinto both of the urine and of the herbs, and so much as shall be convenient for the grief, and you shall boil it well upon the fire. Then if it be for a shoulder-strain, you shall take an old boot, and cut off the foot, so that you may draw it over the horse foot, and about his knee, almost to the elbow of his shoulder, keeping the nether-part of the boot as close and as strait about his leg as may be, but the upper part (which covereth all the shoulders) must be wide and spacious. Into this boot thrust all your mixture as hot as the horse can suffer it, and lay it fast and close about the shoulders, especially before and behind; then driving up the upper part

of the boot, so fasten it to the mane of the horse that it may by no means slip down, but keep constant and firm; and this you must do once or twice a day, till the grief be gone. As for the effect thereof you shall find it, for this is the most violent of all medicines; so that if there be any foul matter that must come forth, this will in an instant bring it to a head, ripen, break, and heal it; if there be no such thing, then in as short a time, it will drive away the offending humours, take away the swelling, and give present ease. Yet would I have you to use this but in extremity, because for the time, the torment is almost insufferable, and indeed not to be endured but only by horses. Now, if it be a fistula, or any such like imposthumation or swelling, then you may spare the boot, and only lay on the medicine in the manner of a poultis, and it will be as sufficient.

Of a false quarter.

This is a rift most commonly on the inside of the hoof; it cometh by the evil paring of the hoof; the horse will halt, and the rift will bleed. The cure is, cut so much away on the side of the shoe where the grief is so as that the rift may be uncovered, then open the rift with a drawer, and fill it with a roll of tow; dip it in turpentine, wax, and sheeps

fuēt molten together, renewing it every day till it be whole. When the rift is closed, draw him betwixt the hair and the hoof with a hot iron over the place, whereby the hoof will shoot all downwards, and ride him with another shoe till it be thoroughly whole.

For an over-reach in the heel.

Take the white of an egg, and bole-army, mingled together with a little flax, and renew it four or five days.

For an upper taint, or an over-reach upon the back, sinews of the shank, somewhat above the joint.

This is a swelling of the master-sinew, which proceeds from this, that the horse doth over-reach and strike that sinew with the toe of his hinder-foot, which causes the place to swell, and the horse to halt. The cure is, to wash the place with warm-water, and to shave off the hair as far as the swelling goes, and to scarify every place of the fore lightly with a razor, that the blood may issue forth, then take of cantharides and eusorbium half an ounce, mingle them together with half a quarter of soap, and with a slice spread some of the ointment over all the fore, and let him rest for an hour after; let him stand without litter, and the next day dress him so again;

the third day anoint the fore with butter, and continue so to do for nine days after; then take three handfals of mallows, a handful of sage, and a rose rake, and boil them in water, and when they are soft, put a pound of butter, and half a pint of salled-oil to the water; and being warm, wash the place four or five times together therewith.

Of the nether-joint.

This is a bladder full of jelly, like to a wind-gall, not apparent but by feeling, growing in the midst of the pastern, above the frush. It proceeds from some strain, wrench or over-reach; the nether-joint towards the fetter-lock will be hot, and somewhat swoln. The cure is tye him about the joint with a list somewhat hard, and it will cause the bladder to appear to the eye, then lance it and thrust out the jelly; then take the white of an egg and salt beaten together with a little tow, and bind it unto it, renewing it once a day for five or six days.

Of the strow, or serew.

This is like a splint in manner of a gristle, as great as an almond; it groweth on the fore-leg. The cure is, take an onion and pick out the core, and put therein a spoon-

ful of honey, a quarter of a pound of un-slacked lime, three pennyworth of verdi-grease, and roast the onion and bruise it, and lay it hot, having first cut the skin.

All these infirmities are cured by the medicine following: Fevers in general, the pestilence, the falling-evil, the palsy or shaking-evil, the night-mare, the hide-bound, all consumptions, the breast-grief, all tireness, the loathing of meat, casting out of drink, all surfeits, the hungry-evil, the sick liver, sick gall, sick spleen, sick kidneys, the yellows, the dropsy, costiveness in the body, the bots, all worms, pissing blood, mattering of the yard, shedding of the seed, falling of the yard, eating of hen's-dung, the falling of the crest.

If the horse has been brought weak by sickness, and that you find it proceeded from some inward infection, or corruption of blood, you shall give him in the morning fasting two spoonfuls of the powder of diapente, well brewed with four spoonfuls of honey, tost too and fro in a pint of white-wine or muscadine, and malmsey, and ride him afterwards an hour in the sun; then set him up warm in the stable, and let him fast an hour; give him such provender as he will eat; and his hay sprinkled with a little water. But if his sickness proceed from any cold cause, or from

any riding, and too sudden cooling, or from washing when he was hot, or such like, then you shall give the same quantity of diapente and honey in sack, or other hot wine, in the manner aforesaid. But if his sickness be less contagious, or that wine is not ready to be had, then you shall give the same quantity of the powder and honey, either in a quart of strong-ale, or a quart of strong-beer, observing all the instructions formerly declared. Now forasmuch as this powder of diapente may be many times wanting, or at least hard to be got on the sudden, therefore, in case of such extremity you shall take a good handful of calandine roots, leaves and all, and having pricked and cleansed them, you shall take of wormwood and rue of each half a handful, boil these in a pot of strong ale or beer till the full half be consumed; then strain it, and dress the herb, and dissolve into the drink half a pound of sweet butter, and an ounce and a half of the best treacle; being no more but lukewarm, give the horse to drink in the morning fasting, and walk him an hour after, then set him up warm, and let him fast another hour; then give him meats as aforesaid. And do this divers mornings, according to the greatness of his sickness. Now for this cure, you must by no means forget to let the horse blood in the neck-vein, an hour or two before you give him the first

drink, and let him bleed till you see the corrupt blood change, and begin to look pure; to know which, you shall save the first blood and the last blood in sawcers, and as they cool they will easily shew you the difference. Now if your horse happen to fall suddenly sick on your travel, when there is no town nor help near you, then you shall presently alight from his back, and with a sharp-pointed knife, or bodkin, or for want of both, with a sharp-pointed strong tag, you shall let him bleed in the roof of the mouth, amongst the bars, somewhat near to his uppermost teeth, and make him bleed well, walking him forward, and suffering him to champ and eat his own blood, which is very wholesome for him at that time, and almost a present cure. Now if the blood stanch of itself, (as commonly it will) then you shall presently piss in his mouth, and so ride him with all gentleness and ease homeward; and being set up warm, wash his mouth and nostrils with vinegar, and the next morning let him bleed in the neck-vein, and give him either of the drenches before prescribed, so no doubt but you may hold on your journey without danger. Now if in the pricking of the mouth you either stick your knife too deep, or else cut the vein asunder, whereby you cannot stanch the blood (as many times it happeneth), in this case put some big round piece of

wood into the horse's mouth, to keep him from biting, and then take a little of the fine down of a hair's-skin or coney-skin, or, for want of them, the fine lint of any woollen or linnen cloth, and hold it hard to the wound, and it will stanch it, such care being taken as that it be not to be licked away with the horse's tongue.

For the malender.

This is a scab growing in the form of lines or streaks over the bend of the knee, in the inside of the leg. The cure is, wash it with warm-water, and shave the scab clean away, then take a spoonful of soap, as much lime, and make it into a paste, and spread as much on a clout as will cover the sore, bind it fast, renewing it every day for three days together, then anoint the same with oil of roses, to cause the crust to fall away, and then wash it with urine, and strow on the powder of oyster-shells.

Of the splint.

This soreness is known to most men; the cure is, wash it with warm-water, and shave off the hair, and lightly scarify all the sore place with the point of a razor, so as that the blood may issue forth; then take of cantha-

rides half a spoonful, and of eusorbium as much, beaten into fine powder, and mingle them together with a spoonful of *oil de bay*, and then melt them in a little pan, stirring them well together, so that they may not boil over; and being so boiling hot, take two or three feathers, anoint all the sore places therewith, and let not the horse remove from the place for two hours after. Afterwards carry him away and tye him so that he cannot touch the medicine with his lips, and also let him stand without litter that day and a night, and within two or three days after anoint the sore with butter for nine days.

For foundering.

Before I enter to express the cure, I would have you diligently note the cause of this disease. The causes of foundering are either from superfluous and over-much eating and drinking, or from immoderate and extream labour, or abundance and fulness of humours. The undoubted and infallible cure is, garter each leg immediately one handful above the knee, and with a list good and hard, then walk him, chafe him into a heat, and being somewhat warm, let him blood in both the breast-veins two or three quarts, and reserve the same, continually stirring it with your hands together, to gather out the clods there-

of, then take thereof two quarts, of wheat-flour half a peck, six eggs, shells and all, of bole-armony half a pound, of sanguis dragonis half a quartern, and a quart of strong vinegar, mingle them all together, and charge all his shoulders, breast, back, loins, and fore-legs therewith, and take him upon some hard ground, suffering him not to stand still; and when that the charge is dry, refresh it again; and having walked him three or four days together, lead him into the stable, give him a little mash of malt, and some hay and provender, and then walk him again for four or five days, renewing the charge upon him as it dryeth, so long as it lasteth, and keep it warm, with a thin diet; but if you see the horse afraid to set his hinder-feet to the ground, and to be so weak behind as to stand quivering and shaking, and coveting to lye down, garter him also about the hoofs on the hinder-legs, and let him blood also in the thigh-veins, to the quantity of a pottle, and so double your charge in quantity, and therewith charge both hinder-legs, reins and flanks, and all against the hair; and if you find him feeble by drawing so great a quantity of blood, give him a quart of malmsey and a little cinnamon, mace and pepper, finely beaten into a powder, made luke-warm, and let him be walked and chafed up and down, if he be able to go; but if he be not able,

then tye him to the rack, and let him be hanged with canvas or ropes, so as he may stand on the ground on his feet, and not suffered to lye down; then pare all his feet so thin that the dew come forth, and tack on the shoes again, stopping the feet with bran and hogs-grease boiled together, as hot as he can endure it, and wrap them in cloths even to the pasterns, tying the clouts fast. Let his diet be thin, and give him no cold-water; and so soon as he is able, let him almost be continually walked, unless he be so long gone that his hoofs begin to loose, or that it break forth at the cornets of the hoofs; then two eggs, and as much bole-armony and bean-flower as will thicken the same, and mingle them well together, and make thereof a plaister, such as may close each foot round about, somewhat above the corner, and bind the same fast that it fall not away, or be removed for two days together; let the soles of his feet be cleansed and stopt every day once, and the corners but every two days, and not to walk him for loosing his hoof; but when he amendeth, walk him upon some soft ground fair and softly; but if it break out above the hoof, then take all the fore-parts of the sole clean away, leaving the heels whole, then stop him, and also dress him about the cornets as aforesaid. If this grief

(though it be very dangerous) be espied in time, it may be cured.

For the shoulderpight.

This is when the pitch or point of the shoulder is displaced, which if it be, the point will stick out farther than his fellow, and the horse will halt downright. The cure is, to make him for to swim in a deep water eleven or twelve turns, to try if it be able to make the joint to return to his right place, then make two rough pins of ashwood, of the bigness of your little-finger, sharp, and thrust in one of the pins from above, downward, so as both the ends may equally stick without the skin; and if the pin of wood will not easily pass through, make it way with an iron-pin, then make two holes cross to the first holes, so as the pin may cross the first pin right in the midst, with a right cross; the first pin should be somewhat flat in the midst, to the intent the other being round might pass the better without stop, and close the inster together; then take a piece of a line, somewhat bigger than a whipcord, and at one end make a loop, which being put over one of the pin's end, so as it may lye between the pin's end and the skin, fasten the least end with a pack-needle and thread unto the end of the cord, so as it may not slip; but first both anoint the pricks and cord with hogs-

grease, then bring him into the stable, and let him rest the space of nine days, but let him lye down as little as you can, and put a pastern on the fore-leg, so that it may be bound with a cord unto the foot of the manger, to keep the leg in the stable more forward always than the other; and at nine days end pull out the pricks, and anoint the places with dialthea or hogs-grease, and turn him to grafs.

For a frothy hoof.

With an instrument make hollow the extremities of the hoof on the outside, till the principal vein break: let the hoof run forth, then fill up the hole with fine salt and hurds steeped in vinegar, and then bind them so that they may not fall off. This is a sure way to make a hard and a sound hoof.

For the blasting of the hoof.

You must first cut the hoof round about the outside, then pull away the sole of the foot, and let the part bleed well, then put in a tent of whites of eggs, and bind the foot about with a band; after two days wash the sore in vinegar somewhat hot, fill it with fine salt and tartar beaten together, and cover it with hurds steeped in strong vinegar. *Probatum est.*

For a pinch or gall in the withers.

First cut out the dead flesh, and make a tent with the white of an egg; and then wash the part with warm white-wine, and afterwards anoint the sore place with white sweet fuet.

A present remedy for the staggers.

When you find your horse distempered in his head, then take a piece of woollen cloth and bind it fast to the end of a stick, being well rubbed with good Barbary-soap, and then put it into both his nostrils, with as much ease as you can, and withal draw it forth very gently again. This is a perfect remedy.

For the strangles.

When you see the strangles growing, prick them under the throat in the morning, and after cover the horse's head with a linnen cloth, and then rub him often under the throat with fresh-butter on the sore place.

For the swelling of the fore-legs.

This distemper cometh after great pains and labour; the efficient causes are many, but principally, that he was travelled when

young, before he was cleansed from his humours; that he hath been travelled when he was full; that he might also have too much rest, and was not kept with moderate diet; that he fed too much on green meat; that he washed after labour, and such like. But if the horse be naturally fleshy limbed, he will never be free, but as soon as he is cured upon travel he will swell again, and therefore such jades should be gelt and put to cart, and never suffered to get colt. The cure is, take of mallows three or four handfuls, rose-cake and sage a handful, boil them in water, and thereunto put half a pound of butter, and half a pint of falled-oil; being made warm, wash him twice a day for three or four days.

All these infirmities are cured by the following medicine: Imposthumes in the ears, ulcers in the nose, all wens whatsoever, the colts-evil, the swelled stones, incording or bursting.

For any of those outward remedies or swellings, you shall take a pennyworth of pepper beaten to fine powder, a spoonful of swines-grease, the juice of a handful of rue, two spoonfuls of any wine vinegar, and mix them well together; then if the swelling be about the horse's head, face, or throat, you shall take flax-hurds, and steep them therein, and stop it hard in the horse's ears, and stitch the

tops together with a needle and thread, renewing it once in two days, till the swelling go away; but if it be in any other part of the body, then with this ointment anoint the grieved place twice a day, till the infirmity consume away. Now for the swelling about the cods, or privy-members, it is good, before you anoint them with this ointment, to bath them with cold water, either by trotting the horse into some deep pond, or to take a pail of cold water, and dipping a cloth into the same, to bathe, clap and wash the cods therewith; then drying them with another clean cloth, lay on the ointment, which is a present cure.

For a grief in the shoulder of a long standing.

The cure is, give him a slit on both sides, an inch under the shoulder-bones, then with a swan's quill put into the slit, blow up first one shoulder, and then the other, as big as you can possibly, even up to the withers, and with your hand strike the wind equally into every place of the shoulders; and when they are both full, beat all the windy places with a hazel-wand over the shoulders, and with a flat slice of your iron loosen the skin from the flesh; that done, rowel the two slits or cuts with two round rowels of leather, with a hole in the midst, that the matter may issue

forth, and let such rowels be three inches broad, and so put in, that they may be plain and flat with the cut; then take pitch and rosin, of each a pound, tar half a pint, boil these together, and when it is somewhat cool, draw all the shoulders very thick therewith; that done, clap on as many flocks as will stick of the horse's colour, and every day cleanse both rowels and wounds, and put them in again, continuing this for sixteen days; then take them out, and heal up the wounds with hogs-grease and turpentine melted together, renewing it till the wounds be whole; but let the flocks lye until they fall off, and let the horse run at grass at least half a year.

Of the wrenching of the shoulder.

This may proceed from a fall, sudden or short turning, rash running out of some door, or by some sudden stop, stripe of a horse, or such like; which being done, he will trail his legs to him close as he goeth. The cure is, to let him blood in the breast as soon as it is perceived, and the sooner the better, three pints at least, and to keep all the same blood in a pot, add a quart of strong vinegar, six eggs broken, shells and all, and so much wheat-flour as will thicken that liquor; put thereto a pound of bole-armony beat to pow-

der, and two ounces of dragons-blood, so as the flour may not be perceived, and if it be too stiff, soften it with vinegar; then with your hand daub all the shoulder from the mane downward, and betwixt the fore bowels; all against the hair; and let not the horse remove until the charge be surely fastened to the skin, then lead him into the stable, and suffer him not to lye all day, keeping him with a spare diet at least fifteen days together; and let him not remove out of his place, but only lye down all that time, and every day refresh the shoulder-point with this charge, laying still new upon the old; and at fifteen or twenty days end, lead him gently, to see if he be amended; which if he be, let him rest for the fortnight without travel, but if he be nothing amended, then rowel him with a leather rowel upon the shoulder-point, and keep him rowelled for the space of fifteen days, renewing the rowel, and cleansing the wound every other day: Walk him up and down very gently, always turning him on the contrary side; and if he go well, pull out the rowel, and heal up the wound with turpentine and hogs-grease, and a tent of flax. But if the hurt were so violent, that all this will not help him, then draw him chequer-wise with a hot iron over all the shoulder-point, and let him go to the plow two hours every day in soft ground,

where he may not be over-much strained; and if it be possible, let him be let blood as soon as he is hurt in those place-veins, and also in the place, or as near as is possible, where the hurt or blow is, to the intent that no blood do congeal there, or that it tarry till the flesh become black with the bruise.

Of splaying of the shoulder.

This also may proceed from some slip, whereby the shoulder parteth from the breast, and so leaves a rift, or rent in the flesh, and film under the skin, which causeth him also to trail his legs after him. The cure is, to put a pair of strait pasterns on his fore-feet, and to let him stand still in the stable; then take dialthea a pound, of falled oil a pint, of oil of bay half a pound, fresh butter half a pound, and melt them together; anoint the grieved place therewith round about the inside of the shoulder, and within two or three hours after all the shoulder will swell; then with a fleam strike all the swelling places, or with a sharp hot iron, the head whereof should be an inch long, to the intent the corruption may run out; and still anoint the same very often with the said ointment; and if it gather a head, then launce it, when it is most soft, and tent it with hogs-grease and turpentine, and a tent of flax.

A remedy for the spavin.

When the swelling appears first in the ham, lift up the thigh, and strike the principal vein with a flegm; let out the blood till no more will come, and then burn the spavin long-ways, and across; heal the burn as you do for the swelling of the pasterns.

For the colts-evil.

The cure is, wash the sheath clean with luke-warm vinegar, draw out his yard, and wash it also, then ride him to some running stream up to the belly, to allay the heat, and do this for a quarter of an hour, and so every day for three or four days.

For the swelling of the cods.

Take strong vinegar, with chalk well powdered, stir it well, and make a paste, mingle good store of salt finely powdered, and with that paste anoint the cods of the horse about three times a day; and in a few days this will help him.

For the mattering the yard.

Take a pint of white-wine, boil therein a quarter of roch-allum, and with a squirt,

thrust it up very far into his yard, squirt the same three or four times, or pierce and cleanse the bottom from the filth; and thus continue until he be whole.

For the tetter.

Before you meddle with the place, first draw blood from his legs, and then strike the veins of his legs on the outside and inside; but not on the place where the hoof comes forth; then wash the place with white-wine, and mingle the juice of prunella with powder of galls, and clear water, and with this liquor beat the hogs-grease, and liquid pitch, that all become like honey; and having so done, anoint the tetter, and six dressings will be a present help.

How to remedy a wind-gall.

Cauterize or burn them four times with a large hot iron on both sides, and then open them overthwart only once; but if there be occasion to use it under the knee on the fore-part of the leg, then you may cure it as they do other burns.

A speedy help for the glaunders.

You must take an ounce of fenugreek, boil it in water till it split and open in two.

and after that mingle with the decoction, and two pound of wheat-meal, and give it to the horse to drink twice a day; keep him fasting.

An excellent remedy for the haw in the eye.

First take up the haw with a little ivory needle, or penknife, and then cut it all away with your scissars, for the way to cure it is to cut it out.

An excellent medicine for a sore back, be it never so wrung with a saddle.

Take sheeps-dung to the quantity of three parts of your plaister, and the fourth part of dry wheat and rye-flour, mingle them well together, and let them boil a quarter of an hour in good fair water; then lay it on warm, and at two or three times applying, it will cure the back. This is an approved plaister.

An excellent cure for the scab, and sore cropper.

Take a little frankincense, nitre, tartar, the bark of ash, vitriol, verdigrease, hellebore white and black, and round birthwort, and stamp them all together with yolks of eggs and ordinary ale; after that boil them, and anoint the sore place.

For foaling of the yard.

The cure is, to wash the same with warm white-wine, and anoint it with the oil of roses and honey mingled together; then put it up, and with a codpiece or truss keep it up still, and dress him once a day till he be whole.

For swelling of the cods or stones.

The cure is, to let him bleed on both sides in the flank-veins, then take oil of roses and vinegar, of each a pint, half a quartern of bole-armony beaten into powder, mingle them together, and being luke-warm, anoint the cods with it, with two or three feathers, and the next day ride him into the water, and give him two or three turns, then bring him to the stable, and when that he is dry, anoint him again, and so continue until he be perfectly whole; but if the cods do swell through any hurt, then cover them with a charge of bole-armony and vinegar wrought together, renewing it till the swelling go away; and if it then break, tent it with mell rosarum till it be whole.

For a bony excreffion arising upon the member of a horse.

Take the root of elecampane well cleansed, and wrap it in a paper and roast it as you

roast a warden, in hot embers, as hot as the horse can suffer it (for you must not scald him), after you have rubbed and chafed the excreffion, clap this thereto, and bind it on hard, and in one or two dressings it will consume the excreffion; also in a morning and evening, you must rub the excreffion with the oil of origanium, which will consume away the hardness.

To cure the running frush, or any impostumation of the sole of the foot; to dry scratches, pains, and such ulcerous sores.

Take stale urine, and burn it with good store of allum, and keep it in a close vessel by itself, then take a handful or two of green nettles, strong and keen, and spread them on some place or other vessel, and dry them either before the fire, or in an oven, after the household bread is drawn, then crush and bruise them into a fine powder, and look what a quantity of powder there is, and take the like quantity of pepper beat also into a fine powder, and mix both very well together, then keep this powder in a close bladder, and when you have occasion to use it, first wash the sore place with the urine and allum, made very warm, and the sore well scowred; after dry them with a very fine linnen cloth; and lastly, strew the pounce of

the powder, so as that it cover all the sore. And thus always do after travel, or once a day in the time of rest.

For incording or bursting.

This is when the rim that incloseth the guts is broken, so that they fall into the cords of the horse, which is apparent to the sight and feeling. The cure is, to put four pasterns on his feet, as the horse-gelders use, then bath his stones with warm-water and butter, then raise them up from the body with both your hands, being closed by the fingers fast together; and so holding the stones in your hands, work down the cut into the body of the horse, by stroking it with your thumbs, one after another, until that side of the stone be so small as the other; then having returned the gut into its right place, take a woollen list of two fingers broad, thoroughly anointed with fresh-butter, and tye his stones both together, or so nigh his body as may be, not over hard, but that you may put your finger betwixt; that done, in all quietness take the horse away, and let him not stir for three weeks after, but the next day unloosen the list, and take it away, and every day after, twice or thrice a day, cast cold-water upon his cods, to make him shrink up his stones, and at three weeks, or a

month's end, geld him of that stone; which done, let him eat little, and continually drink water, but a little at a time, till the three weeks be ended.

For the botch in the groins of a horse.

The cure is, to take wheat-flour, turpentine and honey, of each a like quantity, stirring it to make a little plaister, lay it to the fore to break it, and then launce and tent it with turpentine and hogs-grease, as before.

All the following infirmities are cured by this medicine, viz. headach, frenzies, lethargy, staggers, pofs, colds, coughs wet or dry, short breath, broken wind, rotten lungs, glanders, mourning of the chine, looseness, and bloody-flax.

For any diseases of the head or lungs, or other parts of them offended, you shall in any wise first let the horse blood in the neck-vein, and let him bleed much, that is to say, until you see the blood change, and the corruption come to pureness; then staunch the vein, and take of *assafœtida* as much as a hazel-nut, dissolve it in a sawcer of strong wine vinegar, and take fine flax hurds and dip them therein, then stop the same hard unto the horse's ears, and with a needle and thread stitch the horse's ears together, to keep

the medicine from shaking out; then take off the white cankerous moss, which grows upon an old oak-pail, or other oaken-wood, a good handful or more, and boil in a pottle of new milk, with a root or two of elecampane, till one half be consumed; then strain it, and press the moss exceedingly; it being luke-warm, give it the horse to drink fasting in the morning, and ride or walk him an hour after it gently; then set him up very warm, and having stood an hour, offer him meat, which he will willingly take, and eat heartily, and in any case sprinkle his hay with water. But if you shall perceive that he casteth foul and filthy matter at his nostrils, every morning as soon as you have given him the drench, take of auripigmentum two drams, of colts-foot made into powder as much; then with turpentine work them to a stiff paste, and make little round cakes or troches thereof, of the compass of a groat, but much thicker, dry them a little, then set a chaffing-dish on the coals, and laying one or two of these cakes thereon, cover them with a tunnel, such as you tun wine or beer into bottles with, that the smoke may ascend through the same; and having made the horse's head fast, put the smoke to his nostrils, and perfume him well with the same; and though at the first he be somewhat coy to take smoke, yet having once felt the smell.

of it, he will take such delight in it, that he will of his own accord thrust his nose to the same. As soon as you have perfumed your horse, ride him out till he begin to sweat, then set him in the stable, and do as afore-said; and let him not for a great while drink any cold water, either in his sickness, or out of his sickness, but when you ride him after it; but if your occasion will not permit to do so, then you must heat a bottle of water on the fire scalding hot, and put it into a gallon or two of cold water, so that it may only take the coldness away; then cast a handful or two of ground-malt or wheat-bran into the same.

For surfeiting with provender.

When a horse hath eaten more than the stomach can well digest, he is in such pain that he is not able to stand, but lieth and walloweth as if he had the bots. The cure is, to let him blood, and draw his yard and wash it, and put a piece of a clove of garlic into it, to make him piss; also to rake him behind, and give him a glister.

For the navel-gall.

The cure is, take chimney-foot and yeast mixed together, and plaister it once or twice a day.

For the swaying of the back.

The hurt cometh by some sprain. The cure is, that as soon as he beginneth to complain, which is by reeling or rowling in the hinder parts, which is easily discerned, then take a sheep-skin, as hot as it can be taken from the sheep, and clap the fleshy side along the back, and presently put many cloaths upon it to keep his back as warm as may be, and so let him continue till it begin to smell, then prepare another in like-manner, and take away the old, and so continue him for twenty-one days at least, and let him not be travelled, but still rest. And if this help him not, then draw his back with a hot iron right out, on both sides of the edge of his back, from the pitch of the buttock, to a handful within the saddle, and then overthwart, and let not the strokes be deep, but so burned that they may look yellow; then presently lay on this charge: Pitch a pound, rosin half a pound, bole-armony half a pound, made in powder, and half a pint of tar, boil all together in a pot till they be thoroughly mingled: then being luke-warm, daub it very thick upon the burning, and clap as many flocks of the horse's colour as you can make to abide, and let them remain till they fall off.

Of the guarded, or foul swelled legs, or other parts, by reason of the melting of the grease, or other accidents.

First with the fleam prick the parts that are swelled; take a pint of wine-lees, of cummin-seeds, and a handful of wheat-flour, boil them together till they are thick, then apply this poultis, very hot, to the part swelled, renewing it but once in twenty-four hours; then if this in two or three times draw it to a head, lance it and heal it, either with a plaister of shoemakers-wax, or yolk of an egg, wheat-flour and honey beat all to a salve. But if it do not draw to any head, and yet the swelling continue, then take a quarter of a pound of pitch, as much virgins-wax, rosin half a pound, of the juice of hyssop half an ounce, deers suet half a pound, populeon half an ounce, drops of storax half an ounce, and boil all together in an earthen pot; and after it is cold, take of brimstone half a pound, armoniac an ounce and a half, costus as much, beat these into a fine powder, and then incorporate them with the other, and boil them all over again very well; which done, pour the whole mixture into cold water, then roll it in seven big rolls, plaisterwise; afterwards spread this plaister upon a piece of leather, and fold it about the swelled member, or lay it upon the swelled part; and if any thing

will do it, this surely will assuage it, and afford much strength to the sinews. You shall by no means remove this plaister, as long as it will stick on. This plaister, I must confess, is costly and curious to make; but that horse that hath it applied to his limbs when he cometh from travel shall never be troubled with swelled legs, or ever throw out windgalls; but if you will not be at such cost, then continually, both before and after the travel of your horse, when he is in the house, several times in a day lave and wash his limbs or other swelled parts, with the coldest and clearest fountain-water that you can get, and sometimes let the horse stand in a cold clear river, for a quarter of an hour or more up to the knees, but no farther. This medicine, how poorly soever you may look on it, is of infinite virtue; and though I write of cold water, yet is the operation hot and fiery; only this you must remember, that this application appertains not to imposthumes, but to strains and swellings, which are without much anguish.

How to keep a horse, or jade from tiring.

If you ride on a tiring jade, and fear the perplexed cruelty of this lazy beast, then be sure to carry about you the fine searsed pow-

der of elecampane, and when others bait their horses, the first thing is to set up warm and not walk him. After he hath been well rubbed, take a quart of strong-ale, and put thereto half an ounce of powder of elecampane, and brew them together, then give it the horse with a horn; when done, tie his head to the rack, for you need not care for provender till night, at which time provender him well, and in the morning give him oats or bread, or both, in a plentiful manner; and being ready to back him, give him the former quantity of ale, and the powder aforesaid, and you shall find him to travel with great courage and spirit. Also take a bunch of penny-royal, and tie it to the mouth of your bit, or snaffle, and you shall find it very comfortable to him. Now, if the horse, notwithstanding all this, do happen to tire, then you shall take off the saddle, and with the herb called arse-smart, rub his back very hard, then laying arse-smart all under the saddle, so ride him, and if there be any life in him, it will make him go; for this is a notable torment, and the smart is almost intollerable.

Two sorts of balls to cure any violent cold, or glanders, to prevent heart-sickness, purge away all molten-grease, recover a lost stomach, keep the heart from fainting with exercise, and make a lean horse suddenly fat.

Take anniseeds, cummin-seeds, fenugreek-seeds, and the powder of elecampane roots two ounces, beat them to a very fine powder, then add to them an ounce of flour of brimstone, and take an ounce of the best juice of liquorice, and dissolve it in half a pint of white-wine, which done, take an ounce of the oil of anniseeds, as much of the syrup of colt's foot, and salled-oil, and of fine live honey a pint; then mix all this with the former powder, and with as much fine wheat-flour, as will bind them together, work them into a stiff paste, and make balls thereof bigger than French walnuts, and to keep them in a close gallipot, for they will last all the year; and when you have occasion to use it, take one and anoint it all over with sweet butter, and give the horse every morning one, in the manner of a pill, and ride him a little after it, then feed, or water him abroad or at home, according to your usual custom, and thus do, (if it be to prevent sickness) for three or four mornings together; but if it be to take away an infirmity, then use it at least

a week or more; if it be to take away molten-grease, or foulness, then instantly after his heat, or in his heat only; but if it be to fatten a horse, then use it at least a fortnight. Now if you find any difficulty of giving it as pills, you may then at your pleasure dissolve one of those balls either into beer, ale, or sweet wine, and so give it the horse to drink with a horn. But if it be to fatten, and take away infirmity, as the running glaunders, or such like; then besides these balls, you may make these second balls: Take of wheat-flour, six pound or more, as shall suffice to make stiff the paste, then take of anniseeds, of cummin-seeds, of cathanus, of fenugreek, and ordinary brimstone, of each two ounces, salled-oil a pint, of honey and white-wine a pottle, beat those hard simples to a fine powder, and searse them, then with the rest make them into a stiff paste; then of this paste take a ball as big as a man's fist, and dissolve it into two or three gallons of clear cold running water, by washing and laying the paste therein, and so give it the horse to drink at the ordinary watering times, or any other times when he is disposed to drink, which cannot be too often; then ride and warm him a little after it; then when the water is spent, do not cast away the bottom, but filling up the vessel again with new fresh water, dissolve another ball therein; and thus do for fourteen

days together at least, and you shall see wonderful effects arise. This water scowreth, cleanseth and feedeth in an admirable manner. And the other lesser balls first spoken of purge the stomach or intrails of all foulness, void molten-grease, fortify nature so powerful, that it leaves behind it no evil in the body. And this small ball (if it were for my life (would I give to a horse immediately upon his drawing forth, if he went either to run, to hunt, or use any violent and extreme labour.

For the bide-bound.

The cause hereof is sudden cold after great heat; when the pores are open the cold entereth, and maketh an attraction of the sinews, so as the horse seemeth to go or travel with grief, his skin being as if it were starched, being shrunk and clinging to his ribs. The cure is, to let him blood in both the flank-veins, being next the girding-place and the flanks, then take a quart of good white-wine, and put thereunto three ounces of falled-oil, and of cummin one ounce, of anniseeds two ounces, of liquorice two ounces beaten into powder, and give it him warm, then let him be rubbed half an hour together; cover all his back with a sack, thoroughly soaked in a tub of water, and the water wrung out of

it, and upon that cast many cloaths, and gird them fast upon him to bring him to a sweat, which is the only chief thing to recover him, and give him good masches, and every day let him be so used; for seven or eight days together, give him much sodden barley and beans for his diet, and green malt on the floor, and after eight days let him blood in the two breast-veins, about a pint; then give him a pint of sack, and a quarter of a pint of falled oil, four pennyworth of the best treacle, and ride him until he sweat, then presently set him into a warm stable, and cloath him very warm, and at night give him a good mash of malt, with the powder of brimstone, to the quantity of two spoonfuls.

For the navel-gall.

The cure thereof are divers, and so they ought to be; for medicine is to be ministred according to the hurt, as it may be more or less. If it be but galled, take soot of a chimney and yeast mixed together, and plaister it once or twice a day.

For the worms.

They are ingendered of raw and evil humours; there are three kinds of them; the worm, the bot, and the trencheon. The horse

will lie down and wallow, when they feed on him, his breath will stink, and his mouth be clammy. The cure is, for to give him a quart of new-milk, and half a pint of honey in it blood-warm, this will make them rest from gnawing of him, because they will suck thereof till they are ready for to burst, then the next day give him the drink following: First take a quart of wort or of strong-ale, then take a quarter of a pound of fern, half a pound of favin, half a pound of storecrop, stamp them, and put them together with two spoonfuls of brimstone, and as much chimney-foot beaten to powder, and let them lye in steep two hours, then strain them, and give the horse a little warm; bridle him, and let him stand six hours after without meat, and there is no doubt but the horse will be quiet, for the strength thereof is such to strain the maw, as that the bot will not meddle, but fly from it, but it doth not kill them. After these former drinks given him, the third day make him purging pills, viz. take of lard a pound, laid in water two hours, take nothing but the clean fat thereof; stamp it in a mortar, and thereupon put of liquorice, of anniseeds, and fenugreek of each beaten into powder four ounces; of alloes in powder two ounces, and of agarick an ounce, knead them into a paste, and make six balls thereof, then the horse having fasted over-night,

give him the next morning three of these pills, anointed with honey; when you have opened his mouth, catch hold of his tongue, hold it fast till you have buried in one, and thrust it down his throat with a rowling-pin, and then let his tongue go till he hath swallowed it down, and so do with the rest, and keep him close from all air, and at night give him a strong mash, and warm-water three days after; my reason is, for that these balls will purge out of his body all the bots and worms, and all the humours that breed and cherish them, so as that your horse will be perfectly clean; and you shall find most of the bots alive, when they are purged; for you cannot kill them with medicine, but only make them to forbear vexing him; for so long as his maw resteth so bitter and stinking, they dare not feed on it, but upon other humours.

For the lax.

Take of bean-flour and bole-armony, of each a quartern mingled in a quart of red wine, give it him luke-warm, and after it let him drink warm-water, with bean-flour, but if that will not stay him, then give him half a pennyworth of allum, beaten into powder, and bole-armony beaten small, in a quart of milk, stirring them till the milk be all of a curd, and this will stop him.

For costiveness or belly bound.

Take of the decoction of mallows a quart, put it into half a pint of oil, or so much butter, an ounce of benedick luxature, and pour it into his fundament, whilst another doth lead him, and so keep it in him as long as you can, and after keep him warm, and give him warm-water to drink.

All these infirmities are cured by the following medicine: The bloody-rifts, the bladders, the lampus, all mouth-cankers, all burts in the mouth, the tongue hurt, the paps, the tooth-ach, the shedding of hair, the tetter-worm.

Take of new milk three quarts, a good handful of plantain, let it boil till a full pint be consumed; then take six ounces of allum, and an ounce and a half of white sugar-candy, both being made into a very fine powder, six spoonfuls of strong wine-vinegar, and put them into the milk; then let it boil a little till it have a hard curd, then drain it, and save the whey wherewith you shall first bathe the sore; the whey being warm, then with a clean cloth dry the sore, and apply this salve to it: Take of turpentine, yellow-wax and hogs-grease ground to a fine powder an ounce and a half, mix all these together on a slow fire, and then put it into a gally-pot, and let

it cool; but in case where the bruise is not broken, nor is likely to break, you may apply another medicine, which I shall hereafter acquaint you with.

For the yellows.

The cause hereof is also the abundance of bad humours, the cure is plain, let him blood, if you see it yellow, a pottle, then give him a quart of white-wine, of saffron and fenugreek of each half an ounce, and the juice that is wrung out of two handfuls of felandine, and being blood-warm give it him, and keep him warm, with good masches, wherein put two spoonfuls of the powder of brimstone.

For the surfeiting and foundering of the body.

The cause of this disease is over-much eating after labour, whilst the horse is hot, whereby his meat not being digested, breedeth evil humours, which by little and little do spread through all the parts of the body, and at length oppress the whole body, and so do take away his strength that he hath no power to go or move his joints; and being laid is not able to rise, whereby he wanteth the use of pissing, as also of dunging: Nature being overcome, then doth the humours rule the

body to the destruction of it. In like manner it is when the horse being over-hot with travel, drinketh so much as the cold thereof suppresseth his natural heat; the cause is, that the evil humours being predominant, according to their nature, being heavy and moist, immediately fall down into the horse's legs and feet, and there rest, which if not prevented, will make great gaudy limbs, as the pains, cratches, spavins, wind-galls, casting of the hoofs, and such like. The cure hereof must be according to your effects that are wrought in the horse, if it be perceived, and when the hair beginneth to share, that he will be chil, and shrug for cold, forsake his meat, hang down his head, quiver after cold-water, and after two or three days begin to cough, which is a sign that the surfeit is not great, and that he may be thus cured: Cover his belly with the glister last mentioned, and give him this drink: Take of Malmsey a quart, of sugar half a quartern, of cinnamon half an ounce, of liquorice and anniseeds, of each two spoonfuls, beaten into fine powder, put into it malmsey, and give it him blood-warm, keep him warm, let him drink nothing but warm-water, and four or five days after let him blood.

For the cholic.

The cause of this disease is twofold; either it proceeds from abundance of humours, or of wind; and although it be wind, yet I judge the original to be an obstruction of humours, which will not suffer the wind to have its free passage, which otherwise nature would expel as his enemy. The cure may be divers, and because it is a disease that few farriers understand, I will set down several cures, that if one thing cannot be speedily cured another may. First, it may be an obstruction, for that the horse hath the stone, and cannot stale; for this take a quart of white-wine, half a pint of bur-seed beaten small, two ounces of pursly-feed, of smallage, faxafrage, the roots of philapendula, gromwel-feed and broomseed of each two ounces, beaten to fine powder, a good handful of water-crales, and lay them in steep all night, and in the morning strain them clean, and put into it a little black-soap and a little butter, and ride him until that he begin to sweat; then set him in a stable, with a great quantity of sweet litter under him, cloath him warm, and so let him stand meatless seven or eight hours; then give him dried oats and warm-water, and a quantity of falled-oil to drink; and before he have this drink let him fast all night.

To draw the wolves-teeth.

These are two little teeth growing in the upper jaw next to the great grinding teeth, which hinder the horse from grinding his meat, so as he will let it fall unchewed, and sometimes you shall see some teeth so long and overhanging in his jaws, that they race and cut his cheeks so that he cannot feed. The cure is, tye the horse's head to some rafter or post, his mouth being opened with a cord, so that you may see every part thereof, then take a round iron-tool, half a yard long, made at the end like a carpenter's gouge, and with your left-hand set the edge of that tool at the foot of the wolves-teeth, on the outside of the jaw, turning the hollow side of the tool downward, holding your hand steadily, then with a mallet in your right-hand strike on the head of the tool, a pretty hard blow to loosen it, and make it bend inward, then wrench the tooth outward with the inside of the tool, and thrust it out of his head; and do the like to the other tooth, and fill the holes with salt; and if any tooth do overhang the nether teeth, to the prejudice of the horse, then with your mallet and tool pare the tooth, or as many as overhang, for hurting the horse's mouth.

For the swelling of the gums.

The cure is, to make him bleed well in the pallat of the mouth, and also to scarify the gums that the rank blood may come out, and then rub them thoroughly with vinegar and salt.

Of the rifts or corruption in the pallet of the mouth.

Take sharp vinegar and salt and wash the same, and then anoint it with honey. For the lampus or haddets in a horse's mouth, every farrier can cure it.

For the cumey in the mouth.

This proceeds from the eating of filthy hay the cats, dogs, and other vermin have pissed upon, which will cause the horse's mouth to be furred or clammy, so that he will not eat: The cure is, to let him bleed in two great veins under the tongue, and to wash his mouth with vinegar and salt, and to give him new bread that is not hot.

For the heat in the mouth.

Turn the upper lip, and jag it with a lancet, that it may bleed, and wash it with vinegar and salt.

For the canker in the mouth.

Wash the sore place with strong vinegar, made thick with the powder of allum two or three days together, to destroy the exulcerate matter; then take a quart of fair water, of allum four ounces, of honey four or five spoonfuls, of maudlin leafs, sage leafs, and columbine leafs, of each a handful; boil all these together till half be consumed, and then every day, being warmed, wash the same three or four times a-day, and it will heal it.

For the barbels or paps under the tongue.

The cure is, to clip them away, and to wash them with vinegar and salt.

For the hurt of the tongue with the bit.

The cure is, to wash it with allum-water, then take black bramble leafs, and chop them with yerd, and put them within a clout, and make them as round as a ball; then dip the same in honey, and anoint the tongue therewith until it be whole.

For bleeding at the nose.

This may be derived from many causes, which cannot be truly known; as proceeding from the body, and therefore shall only direct

how to cure the same. Take a pint of red-wine, and put thereto a quart of bole-armony beat to fine powder, and put one half into the nostril that bleedeth, holding up his head; this may do well, if the nostril or head be the original cause; the next day give him the rest into his body, and that will surely bind his body, and it may help the bleeding inward.

Of the vines.

This distemper proceedeth from the corruption of blood. The cure is, draw them with a hot iron right down the midst from the root of the ear, so far as the tip of the ear will reach, being pulled down, and again under the root of the ear, with a hot iron draw two strikes on each side; then in the midst of the first line lance them with a lance or razor, taking hold of the kernels with a pair of pinchers, but beware you touch them not with your bare fingers; pull them so far out with your pinchers, as that you may cut the kernels out without hurting the vein; then fill the hole full of salt.

For the canker in the nose.

This proceeds from corrupt blood and consumed flesh, which makes it raw with, and in the end will eat the gristle thereof; it will

also cause the horse to bleed at the nose, and to yield a filthy savour. The cure is, take green coperas and allum, each a pound, and of white coperas a quarter of a pound, boil these in a pottle of running water till half be consumed, then take it off, and put to it half a pint of honey; hold up his head with a staff, but not too high, and squirt the water, being lukewarm, three or four times together into his nostrils, and give him liberty to blow out the filthy matter lest you choak him; and with a stick and rag wash his nostrils twice a-day until it be whole.

For the canker of the eyes.

This proceeds from the corruption of the blood, by reason whereof you will see many red pimples within and without the eye, and through inflammation the eye will look red, and be full of corruption. The cure is, to let him bleed on the side of the neck that you see the eye is grieved, a pottle or more; if you see the blood very foul, and the inflammation great, then take three pints of fair water, roch-allum, and green coperas an ounce, and boil them till half be consumed, then once a day being made warm, with a fine cloth cleanse the eye, so that it look raw; and do this every day till it be whole.

For impostumes in the ears.

This may proceed from some blow, or evil humours. The cure is, take powder of lintseed, and of wheat-flour, of each half a pint, hogs-grease a pound, warm them in a pot on the fire, until they be thoroughly incorporated, by continual stirring, then take a piece of white leather, somewhat bigger than the impostumation, and spread it very warm, as far as will cover the swelling, and renew it every day till it break, then launce it so as the corruption go downward, and tent it to the bottom with a full tent of flax, dipt in this ointment: Mel rosarum, oil of life, and turpentine, of each two ounces, and mingle them thoroughly; then make him a biggen of canvas to close in the fore, so as the tent and ointment may abide within, renewing it every day once until it be whole; but if the pain be in the ears, without any great swelling, which may be only with cold, then take black wool dipt in the oil of camomile, and thrust it into his ears.

Of the pole-evil.

This proceedeth likewise from the same causes, and groweth like a fistula betwixt the ears, or nape of the neck, you shall perceive

it by the swelling; if it be not broken, ripen it with a plaister of white hogs-grease, as though you would scald it therewith, and make him a biggen to keep him very warm, and renew the plaister twice a-day very hot, and it will open the sooner; then where it is softest, and where the corruption may best issue out, with a round hot iron, as big as your little finger, two inches beneath the soft place, thrust it upwards, so as the point of the iron may come forth at the ripest place; then tent it with flax dipt in hogs-grease, and lay also a plaister of hogs-grease on the same, renewing it for four or five days; then afterwards, take half a pound of turpentine washed clean, and dried from the water, with two yolks of eggs, and a little saffron, and mingle them together; then with a quill search the depth of the hole, and after with a sponge, so big as the hole to the bottom, and so thrust it with a quill into the wound to the bottom, and a warm plaister of hogs-grease to cover it, renewing it twice a-day; but when the swelling ceases, use no plaister.

For the staggers.

The cause of this disease, for that the brain and the stomach are united and changed together with certain sinews, and thereby interchangeably communicate their damages,

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so as when the stomach is oppressed with the gross and rough humours, or some strong vapours, as when the horse hath eat some strong herb, as wild parsnips, or such like, by the strong vapouring spirits, proceeding out of the stomach to the brain, oppressing it as the strong vaporous spirit of wine, aquavitæ, and the like, do the brain of man, he is dizzy and reeleth as if he were drunk; at first he doth only reel and stagger as if his back were swayed, and will eat his meat, but afterwards he will forsake it, and not be able to stand. The cure is, let him blood in the temple-veins, a handful under the eyes, then take garlic, herb-grace, a little leaven and bay-salt, stamp them together, put thereto a little quantity of aquavitæ, and put it into the horse's ears, and bind them close, and so let it remain twenty-four hours, and wash his tongue with sharp vinegar and salt; let him not drink any cold-water, and once a-day gently walk him.

A sovereign medicine, called the emperor of medicines, concerning horses.

Take of wheat-meal six pounds, or as much as will bring all the simples following to a stiff paste; of anniseeds two ounces, of cummin-seeds six drams, of carthamus one dram and a half, of fenugreek one ounce and two

drams, of brimstone an ounce and a half, and of falled-oil one pint and two ounces, of honey one pound and a half, of white-wine four pints; and all this must be made into a very stiff paste, the hard simples being pounded and searsed to a fine powder, and so mixed with the sweet simples. After this paste is made, it must be kept in a very clean cloth; and when you have occasion to use it, you shall take thereof as much as will make a round ball as big as a man's fist; and this ball you shall, by continual washing, laving and squeezing, dissolve into a gallon of running-water; so give it the horse to drink, either after his heats, or any violent labour or exercise, or when he is sick, poor, lean, or inwardly diseased, and full of foul surfeits, then you shall suffer him to drink thereof as much and as often as he pleaseth; the colour of the water will offend him to take it, therefore at the first offer it him in the dark, of which when he has but once tasted, he will then forsake all water whatsoever to drink of this only. Now touching the virtues which appertain to this medicine, they are these: *First*, If your horse be never so poor, lean, surfeited, and diseased, if you give your horse of this water, with the ball dissolved in it, as aforesaid, it will in fourteen days not only cleanse and scower him, but also purify the blood, and enliven and quicken him in

a wonderful manner. *Secondly*, It will be a means to prevent any sickness for a long time. *Lastly*, It will make him continue in good case, feed lustily, and gain flesh apace.

A safe purge to prevent sickness.

Take a quarter of a pound of red saunders, and as much fresh-butter, make them up, and give them as the former, or rosemary leaves bruised and mixed with butter, or green figs, so ordered; and let those that undertake the cure of horses, observe particularly these five things.

1. To what diseases horses are inclinable.
2. From the cause they proceed.
3. By what means the causes do accrue.
4. The tokens by which any distemper is known.
5. And how to apply apt and seasonable remedies.

For the cramp, or convulsions of the sinews.

The cause of this disease is over-much fullness, or very great eating or feeding, much rest, want of moderate exercise, or by over-much bleeding, extream labour, or extream cold. That which proceeds from great fullness and rest, comes suddenly; that which comes by emptiness and penury, goes on by

a little and little. I have seen a horse who had his head awry, and neck so stiff, as he could not bow any manner of way, nor the strength of men open his jaws or mouth without breaking them; his eyes hollow in his head, and the fleshy parts thereof turned backwards; his tongue so benumbed that he could not eat nor drink, but by sucking his drink by little and little with his lips, all which came by full and foul feeding, and too much rest, being, notwithstanding, exceeding fat when he died. The cure of this disease is, to take a great quantity of blood from him; take him behind, and give him a glister of mallows, camomile, and fennel boiled in milk.

How to order him after this, for the recovery of his limbs, &c.

Let him be rubbed by two or three strong lusty men, and keep him in a very warm room; then take two quarts of strong-ale, and two pound of black-soap, and boil them together till they look like tar, and anoint and rub his body therewith, so as it may drink it in; then cloath him, and stuff his head and neck close, and all the parts of his body, to bring him into a great sweat; give him a pint of white-wine, two ounces of aloes, and half an ounce of agaric infused

therein, beaten small, putting therein three spoonfuls of clarified hogs-grease; and, if that will not do, give him every day a glister: keep him warm and well rubbed; then give him small ale to drink, wherein mallows and liquorice have been boiled; let his diet be small, but sweet and good.

For a cold in the head.

The cause thereof proceeds from some heat, or standing too much stiff; or from having some air piercing his head when he is hot; or from some humours congealed after long rest, and full feeding; or through his wanting moderate exercise to expel the same. The signs are, a continual distilling rhuem, waterish eyes, or his short drawing breath at his nostrils, when the canes and passage of the breath or stopped. The cure is, put upon his head a double hood, and every morning, when he is fasting, ride him; take two goose-feathers dipped in oil of bay, and thrust them up his nostrils; through the ends thereof, with a needle, put two threads to fasten the same to the head-stall, so as the feathers cannot fall out, and to the snaffle or bit that he is ridden with, fasten a root or two of poly-podium of the oak, which has been steeped all night in scike-oil, and every time you ride him, anoint the same with the said oil;

and when he cometh home, put on his head the double hood, and perfume him with hot frankincense, casting a cloth over his head: Use him thus nine days together, and be sure to give him warm-water, or good masches, during the said nine days; for all rheums having continuance, are dangerous, and many times leave behind them a worse disease than themselves.

The mourning of the chine, its cause and cure.

The cause hereof is great heat, and afterwards taking of cold: And *first*, it beginneth with rheum, then the glaunders, and afterwards the mourning of the chine, (as it is usually termed) but more truly and essentially, it begins with rheum, which proceedeth to inflammation of the liver and lungs, by continual distilling upon them, then to the glaunders, which is the impostumation thereof. And *lastly*, to an exaltation, which abruptly, and untruly is called the mourning of the chine. The signs to know the disease are these, 1. The continual distilling of rheum in the head. 2. The continuing knobs, betwixt the jaws. 3. The keeping of his hair without casting. 4. The continual running of thick stinking matter from the nose. 5. The fastning and growing of a knob as big as a walnut on the inside of one of the jaws,

which if so, commit his carcass to the crows, for he is past all help. The cure for such a horse as may be curable, is to follow these directions : For the first, which is rheum, the cure I have mentioned for the cold in the head. For the second, which is a congealed substance, gathered into two knobs betwixt the jaws, it is cured as the glaunders. For the third, which is keeping still his winter coat, and not casting off the hair, let him bleed often, until you see that he hath pure and fine blood, and give him good mashes, made very strong with malt ; and put in his provender polypodium of the oak cut small, the root of the white lilly cut small, of each a good quantity, if he will eat, and shread in also a quantity of liverwort ; and, if he be a horse of value, at every time a sixpenny weight of rhubarb ; and every morning, being fasting, give him a pint of the drink prescribed for the preservation of the lungs, and keep him only with wheat-straw, (but not hay) and old, sweet and clean oats.

The manner of ordering him after this.

Every morning, after he hath drunk that clean drink, ride him two or three miles. For the fourth, which is the thick running at the nose, continually clear his head, as hath been prescribed for the cold in the head ;

and so in every part, as the rest are prescribed, only adding of purging drinks, viz. after all these prescribed orders, give him two several mornings, a pint of white-wine, an ounce and a half of aloes, half an ounce of agaric, two drams of liquorice and anniseeds, and a spoonful of pure hogs-grease warmed and well dissolved together, and after he hath purged, the next day let him bleed in both the breast-veins the quantity of a quart, and still keep him with good mashes and moderate travel; give him every morning fasting, for nine days after, a pint of that drink which I prescribed for the clearing of the lungs. For the fifth, If you find amendment, but a knob growing on his jaw, then you must give him a purge with pills, as I have prescribed; and if that help him not, then without all doubt he is past all remedy.

For broken-wind, the cause.

The cause why a horse draws his breath very short may be many, as sickness, great foulness, or violent exercise; but the reason of this cause is, for that the heart being the only hottest part of the body, from whence the arteries and veins do carry the heat thereof to every part of the body; (and therefore it is truly said to be the chariot of life) when they by sickness, fulness, or violence of ex-

ercise, is choaked, and as it were, smothered with great heat, then do the lights, being bellows to draw breath, according to that office that nature hath ordained them unto, presently labour with all violence to draw it, to cool and comfort the heart, and so consequently all the members and parts of the body, to fill all the empty corners with air, which naturally, and in predominant qualities is moist; and when they have drawn sufficient breath, the dryness and heat, by the moisture of the air, is quenched; which being so, then doth the creature draw breath leisurely and coldly, and not before; but so long as the heart is oppressed by the violent heat of sickness, by great fulness, or violent exercise, the lanes, pipes, and passages for the breath are almost stopped and choaked up, then do the lungs labour very extream thick, to preserve the life of the creature, which is the heart; and therefore it is said to be the first that liveth, and the last that dieth. And to make the same a little plainer, observe a horse that is broken-winded, (as the usual term is), and you shall find that he fetcheth his breath much shorter, when he is kept in the stable only with dry meat, than when he goeth to grass; and the only reason is, the coldness of the moist food, which keepeth the heart and all the body in coolness, because the humours that proceed from

the digesture of grafs are cool and moist according to the natural qualities of grafs and raw herbs.

For a broken-wind, the cure.

Take the dung of a boar dried to powder a spoonful, diapenthe two ounces, the juice of Spanish liquorice dissolved, an ounce, in a quarter of a pint of ale, put these into a pint of new milk, and give it him warm fasting; repeat it for five or six mornings, and ride him a gentle pace after it, if the weather be warm or seasonable, without letting him water, or eat any thing; then put him into a warm stable, give him a mash of oats and split-beans, and keep him clean littered, and free from any noisome scents, and the lungs by this means, as well as the wind-pipe being cleaned, the breath by degrees, if you do not over labour, heat or ride him in much rainy weather, will return to its former ease and moderate breathings.

A sovereign drink to preserve a horse's lungs and liver clear; the most excellent knowledge in a horseman or farrier.

Take tartar of white-wine lees, (which is no other than the lees of white-wine dried to powder, an ounce and a half, hyssop two

handfuls, of colts-foot two handfuls, of horehound an handful, of enula-campana roots an ounce, and red sugar-candy four ounces, boil them all in a quart of ale, and when it is half boiled, put to it of hyssop-water twice distilled, one pint, boil them again, then strain it and give it him very warm to drink. If you have a delicate horse, and have cleared him, and dieted him, (for I would not have the owner to be at any extraordinary charge with a jade,) then every morning that you shall hunt him, or exercise him, give him, fasting, a pint of this drink, and so continue him, until you find him clean, and in perfect breath. The lungs most principally ought to be kept clean, as they continually draw fresh air to them, filling all the empty corners with moistness; and that is the reason why horses are broken-winded, because the lungs are imperfect to do their office. And likewise your broken-winded horses, when they are kept only with a dry sort of meat, do draw their breaths much shorter than when they go to grass, because grass is naturally cold and moist, and thereby his heart being the more cold, the horse draweth his breath much better, and more at length. But if the horse be clear, empty and sound of body, then doth he always draw his breath alike. From which ground of reason, three things may be collected and observed:

First, That the horse's head be kept clear from all obstructions, the which always cometh of cold, which greatly hindereth the drawing of breath in the body. *Secondly*, That the skin of the horse be kept clear and open, to draw breath at the pores of the skin into the body. *Thirdly*, That the *canalis pulmonis*, the pipes or lances of the lungs, be not opilated or stopped through viscuous plegm or rough humours, like bird-lime, or with imposthumation in the pipes, and so become putrified; every one of which, in continuance of time will destroy the horse.

Of the signs of the inward sicknesses of a horse.

To know the true signs of the sicknesses; if they proceed from the first occasion, which is heat, then the signs are these: *First*, Heaviness of countenance, swelling in the limbs, scowring, or looseness of the body in the beginning of the sickness, and dryness or costiveness in the latter end, short breath and hot, with a loathing and forsaking of his meat. If it proceeds from the *second* occasion, which is cold, then the signs are also heaviness of countenance, either dull, or else close up eyes; hard boyls, or big pustles betwixt the chops and the root of the tongue; and sometimes a hard swelling up from the chops to the root of the ear; a rotten and

moist cough, the horse ever chewing some filthy phlegmatic matter in his mouth after his coughing, which in one respect is no evil sign, because it sheweth a rotten cold that is but newly gotten, and so ought to be cleansed, whereas to cough clear and hollow, and not to chew after it, shews a dry cold that is of long continuance, sore festered, and hard to be recovered. *Lastly*, His body will fall away, and when he drinketh water, it will issue forth at his nostrils; his eyes will be ever mattery and running, and his hair rough and stirring. If it proceeds from the *third* occasion, which is the surfeits of meat and drink, either natural or unnatural, then the signs are these; heaviness of head and countenance, in such a violent manner that the horse can hardly lift his head from the manger; a dull and dead eye, a staggering and reeling pace, and if the disease be far grown, a frantic and mad behaviour, as biting the rack and manger, and at such as shall come about him; sometimes biting at himself, and beating his head against the wall, boards or ground, and other frantic passions: But if the disease be less contagious in the brain, but more inwardly settled at the heart, then the signs are yellow in the whites of the eyes, and in the inside of both the upper and nether lips; if the disease be far gone, then a yellow over all the skin, and a continual faint

sweat doth break forth ; and therefore by all means remember, that though the alteration of colours is natural, yet with all you must understand that it is not so in all cases. If the dapple-gray in process of time turn to white, the dark iron-gray to a bright colour, the black to an iron-gray and such like, that this is no unnatural alteration, and so no signs of sickness. And therefore, not to be deceived at all, or to be doubtful, acquaint yourself with the true colour and complexion of your horse, which you shall best discern when he is at the pride and height of lust, when he is wanton, proud of flesh, smooth, sleek, and shining ; and when you shall see his complexion alter in any part, or all, then expect some sickness. As you thus acquaint yourself with the complexion of your horse as to colours, so you must also have a settled knowledge of his countenance and gesture ; and to that end you must be careful to mark and note them in all his actions and motions, as well within doors as without, as well in his play as in his rest ; at his time of feeding, and at his time of exercise. You shall note the cheerfulness of his eye, the carriage of his head and neck, which are his angry characters, and which his pleasant ; and when he biteth for wantonness or offence ; and these you shall best find out in his feeding, in his exercise and playing in his dressing ; and if

at any time you find any of these characters fall on a sudden, and that his gesture is more lumpish and heavy, then call yourself to an account of what you have done, either in exercise, feeding, airing, or ordering, for there is no doubt but there is distemper and sickness approaching, if it be not prevented.

Observations to be taken from the horse's feeding and dung, as to the state of his body, &c.

Having thus acquainted yourself with the complexion and countenance of your horse, so you must also not be ignorant, but observe divers other outward and inward qualities, for they are the greatest light that can be both to health and sickness; and to this end you shall especially mark his filling and his emptying; that is, the manner of feeding, and the manner of discharging his body. In his feeding, whether he eats with a good appetite, or a weak stomach: The first is healthful, the latter unwholesome: For if he eat with a good appetite, he will neigh and call for his meat before it come; when either he seeth his keeper, or a preparation for feeding, as sifting the oats, chipping of the bread, or the like, he will receive it cheerfully and greedily, shaking his head, and shewing other signs of alacrity and rejoicing; which qualities, after he hath used, if on the sudden he

refrain, and so receive his meat dully and unpleasant, it is a great sign of sickness. As in his feeding, so you shall mark his qualities in emptying, at the time, the place, the substance. The time, as whether he emptieth in the night-time better than in the day. The place, whether he emptieth better in the house or abroad, or when you are mounted; whether before you begin exercise, or else after some gentle motion or stirring; whether at the stable door, or at some unusual places by the way, or in the ground where you give him his exercise. *Lastly*, For the substance, whether it be much or little; if it be much, you must forbear exercise, and make him empty the oftner; and if it be little, then you may labour at pleasure, whether it be good or bad, and that commonly falleth out according to the food he eateth.

Things to be inferred from the foregoing observations.

If it be clear, firm and pale, with white grains, in complexion like sweep-soap, then it is wholesome, if it be black it shews heat in the body, if greasy then it shews foulness, if red and hard it shews costiveness, if pale and loose then inward coldness. And as you thus observe his ordure, so you must also observe his mane, whether high, low, &c. As

these qualities of feeding and emptying, so you shall note his qualities in rest and watchings, that is, in his lying down and standing up; what hours and times he observeth for either, and how long he continueth in them. And if at any time you find sudden or gross alteration, then be assured of some sickness approaching, and thus do of any other particular qualities in your horse which you shall observe in his health, for it is impossible to nominate all; and if you find them suddenly to surprise, it is doubtful that there is some sickness following. As you thus observe the complexions and qualities of the horse, so you must observe his natural custom and conditions, and how in his livelyhood and best health he standeth affected. To particularize or name them I cannot, because they proceed most from hidden inclinations, or else accidental apprehensions, which, by continuance of time, grow to natural habits; and any of these, when they shall increase, or fall, are true prognostics of distemper and sickness. There are many other signs of sickness, as the not casting of the coat in due time, hide-bound, and continual dislike and leanness where there is good feeding. But on these I shall enlarge myself hereafter.

Some other choice observations, for the preventing of all inward sickness.

The preventing of inward sicknesses consisteth in two special observations and considerations: *First*, To prevent it before it come, that it may not offend at all. The *second* is, to take it at the first appearance, and so prevent it, before it rise to any great danger or hazard, and to prevent sickness, that it offend not your horse at all. Though I have already treated on this subject, yet I shall not omit to write what is of excellent concernment to the practitioner. When you put your horse to grass, every three or four days before you turn him out, take blood from his neck-vein, then the next day after, give him a pint and a half of muscadine, and half an ounce of the powder of diapenthe, or three quarters of an ounce of the horse mithridate, and then by degrees to abate his cloaths. You shall also observe, when you let your horse blood, to proportionate the quantity you take from him, according to the goodness or badness of the blood; for the loss of good blood is unwholesome, and doth hurt, and to preserve ill blood is dangerous and noisome. Also, if you observe when you take blood from your horse, to receive it into a vessel, and stir it about continually, as

the horse bleedeth, to keep it from clotting; then having bled him, take the blood and besmear it all over the horse's back and body; you shall find it wonderful wholesome to him, for it comforteth his body, cleareth his skin, and bleedeth a rejoycing in all the horse's internal parts. Now if you have no determination to put your horse to grass, and yet you would prevent inward sickness, then you shall observe once in two or three months, when you have the best leisure to rest your horse after it, not to fail to give him muscadine and diapenthe, and horse mithridates, as was before shewed, and not let him blood at all. Now you are to observe here, that although I only prescribe muscadine, wherein you shall dissolve your powder, or mithridate, yet know that when you cannot get muscadine or other sweet wine, that then you may take strong-ale or beer, but in a great quantity; for whereas you take but a pint and a half of wine, you shall take of beer or ale a full ale-quart; as for the powder of mithridate, you shall keep the first quantity already prescribed; and if you warm your beer or ale a little on the fire it will not be amiss, but better. Now to take sickness at the first approach, and to prevent it, that it may not arrive to any great danger, you shall by all means observe to look well into the occasions of sickness, which are already shewed, and

into the signs of those occasions; and if you find yourself guilty of any of them, or that the horse discover any of the former signs, then presently let him blood; and three several mornings after give him the drink or portion before prescribed, and undoubtedly it will prevent all the force of sickness, and restore the horse to his strength, and good state of body.

To refine the blood, and save the liver from infection.

Take of polipodium of the oak, made very clean, cut it into small pieces, then take a handful of liverwort, cut it into small pieces, together with sixpenny weight of rhubarb cut small, and every morning, for three or four days in a month, give it the horse in his provender very early, two or three hours before his watering, and once in half-a-year make trial of his blood how pure it is, and accordingly minister help if need be. The medicine is highly esteemed by those that have experienced it.

Of bleeding in any heart-sickness, or in any ordinary inward sickness.

I will now descend to the cure of these inward sicknesses. And though every several

sickness have a several cure, yet I draw all here into one sudden, but certain and infallible proved method, ever found prosperous and fortunate, whensoever, by signs before rehearsed, or other accident or knowledge, you shall find your horse grievously pained with inward sickness, the first thing you shall do, open his neck-vein, and receive some of the first blood into a pewter porringer, which if you set in cold water, will presently discover the foulness and putrefaction, then let the horse bleed well till the blood change; neither must you be nice or tender in this action, because you must understand that all inward sicknesses in horses draw their effects from the perfection of the blood only. And this is the reason, It is certain that the horse, of all other creatures, hath no natural vessel into which to receive the scummy and putrified matter, which ariseth from corrupt and cholerick blood, but it is either voided in excremental humours, or moderate exercises and sweats, or else by immoderate exercise and violent labour; by too much repletion and fulness, by unwholesome food and evil diet, or by some other natural defects, his cholerick corruption increasing and overflowing, it presently, and in an instant, over-spreads the whole body, having its course through every vein, and so discoloureth the skin, and makes all the outward parts yellow,

especially the eyes and the inside of the lips; also mixing with the better blood, and confounding the strength and virtue thereof, it brings a general faintness over the body, and in the end suffocateth the heart, of course there must follow sudden and certain mortality; and hence proceeds those sudden deaths of horses, for which our weak farriers can give but a foolish and idle account. But to return to the purpose; after you have taken away a good quantity of blood, and (as you imagine) all, or at least, the most part of that which is corrupt, then set him up in the stable, tying his head to the rack gently, and at liberty, nether so high that he shall be compelled to rest his head upon the bridle, nor yet so low that he may thrust his head into the manger: and thus you shall let him stand at least two hours.

How to prepare your horse after bleeding, to receive what is necessary for remedying dangerous sickness.

If the sickness be not contagious and dangerous, administer not any potion to him that day, because the vein being opened, and all the numerous powers and faculties of the body disturbed, it will be a double vexation of his spirits to go also through the working of the potion, therefore, in this case, the sickness not being violent, you may forbear

farther administration, and only after the horse hath fasted you shall give him such food as he will eat, whether it be strong, savory, sweet, dry, clean drest; as for the quantity it matters not, for a small pittance at that time will maintain him; besides emptyness is no great displeasure. At high noon you shall give him a sweet mash of malt and water made in this manner: Take half a peck of good malt well ground and put it into a pale by itself, then take a gallon of fair clear water, set on the fire; then when it is come to the height, that is ready to boil, put as much of it to the malt as will moist and cover the malt all over, and stir them exceedingly well together, crushing the malt with a flat rudder as much as you can, ever and anon tasting it with your finger, till it be as sweet as honey, and then cover it over as close as you can, and so let it stand and stove for two or three hours at least; and then the hour being come in which the horse is to receive it, uncover the mash and stir it about; but finding it too hot, then put to it some clear cold water, that they may temper and allay it, but in anywise not so much as may take away any part of the sweetness; and in this tempering with your hand, crush and squeeze the malt as much as you can, the mash being lukewarm, give it to the horse to drink; and if he eat of the malt, let him take

thereof at his pleasure. This is the manner of making an ordinary mash, or horse-caudle, for it is of that nature and quality; and to that purpose that a caudle is administered to man is this given to a horse; you must understand, that in these contagious diseases nothing is more pestilent than cold water, and especially when that exercise cannot be used. The ruder farriers and horse-grooms do make their mash another way, putting the malt to the water at the first, and so boiling them both together; but this is unwholesome and naught, and that every good house-wife can witness; for this long boiling over-scalds the malt, and takes away the strength and sweetness, and gives a harsh and unsavory taste, which is offensive to the horse's nature. If your horse be coy, and refuse to take the mash, as many are, partly for want of use and custom, and partly for weakness of stomach, then you shall strain the water from the malt exceeding hard, and so give him it in a horn to drink; then take the grains which you have so strained, and put them in a manger before the horse, on which, whether he feed or not, it matters not; for if he but smell and snuffle his nose upon them, it is sufficient, as the fume of it is exceeding wholesome for his head. After you have given him the mash, see that he is warmly cloathed; as namely, a good woollen body-cloth,

to come round about his heart, a large cloth or two to come over it, and to be wisp round about with soft, thick, and large wisps; for the little, hard, and neat wisps, though they are comely to the eye, yet are unwholesome for the body, for hardness and smallness makes an impression into the horse's sides, and causeth him to forbear to lye down, when nature and rest requireth it. The horse being thus warm-clothed, you shall then cause one or two to rub all his four legs, from his knees and lameness downwards, with very hard wisps, and to rub them as hard as may be; and whilst his limbs are thus in rubbing, take a coarse rubber or two, made of new hardened temper-cloath, and warming one over another over a pan of coals, with them rub the horse exceeding much in the nape of his neck, and the pole, just between his ears, and on the temples of his head; for there is nothing that is more wholesome than these frictions and chaffings, for they dissolve humours, and revive all natural heat, bring a cheerful nimbleness to the limbs, and purge the head of gross cold and rough matter, cleansing and purifying the brain, by which the members and other faculties are fortified, and the whole body reduced back to its full strength and ability. As soon as you have ended this friction, or rubbing, you may let the horse take his rest for two or three

hours, and only leave a lock or two of sweet hay in his rack, and no more; for the least quantity of any thing is too much, and soon cloyes a sick horse.

An excellent medicine for any violent sickness, if the horse be at the point of death.

If you have a horse in this extremity and desperate case, the first thing you do shall be to open his neck-vein, and bleed him well; then two hours after his bleeding take two ounces of the powder of diapenthe, and beat it in a mortar, with as much clarified life-honey as will bring it to a substantial treacle. When this confection is made, take half an ounce thereof, or more, and dissolve it in a pint and a half of muscadine, and so give it to the horse to drink with a horn; and if he have so much ability of body, walk him up and down for half an hour, either in some funny place, close barn or empty house; then set him up, and let him fast an hour. At noon give him, if you can get it, a gallon, or thereabouts, of the first running of the strongest ale, before it be put to barm, when it is clear, strong, and carries a royal on the top; but when this is not to be had, give him a sweet mash, perfume, rub, cloath, diet, and order him in all respects as were shewed you in the former cure. And thus

do for three days together, without fail, and then no doubt but you shall see health approaching.

How to order your horse after receiving the foregoing medicine, to perfect his recovery.

At the end of three days, forbear all sorts of masches of both kinds, and follow all the prescriptions before said. Now, if during the cure, either through violence of medicine, or foulness of the horse's body, you shall find any hard puffs to rise up betwixt the horse's chops, and at the root of the tongue, then you shall first clip away the hair, as close as may be; then you shall take a wax-candle, and burn the swelling, till you scarify the skin, then take a piece of leather somewhat larger than the swelling, and having pricked it all over with the point of your knife, spread thereupon thick black shoemaker's wax that is well seasoned and new; then warming it upon a few coals, lay it upon the swelling, and remove it not till either it fall off of itself, or else the fore breaks; then renew the plaister, and with it heal up the sore. This plaister, for the cheapness and meanness, will hardly gain credit with those that are curious; but I dare assure you, that there is not a more excellent or sovereign plaister belonging to a horse, for it ripeneth and breaketh any

impostumation whatever ; it assuageth any hard swelling, or tumor, whether in the joints, or any other fleshy parts, and it healeth what it breaks or ripens ; and with its heat dissolves all manner of humours that are knit together, or occasion pain and swelling.

To help a horse that cannot dung, after having been sick.

There is another accident which attends the sickness of horses, and that is costiveness, or belly-binding, which makes a horse that he cannot dung, or void his ordure. This accident, when at any time it happens, shall be good for you first to take him, then anoint your hand all over with sweet butter, or clarified hogs-grease ; some use oil-of-bay, but it is too sharp and too hot, and many times, if the action is used too roughly or unadvisedly, it breedeth an exulceration or soreness in the tail, and inward parts ; therefore, either take sweet butter, or hogs-grease, and your hand being daubed therewith, thrust it up into his tuel until you feel his ordure, then draw out as much thereof, if it be black, as conveniently you can ; also take a great candle, of three or four in the pound at least, and cutting off an inch or two at the upper, or lower end, with your hand anoint as before, thrusting the great end forward, put it

up into his tuel as far as you can get it ; then suddenly drawing out your hand, and leaving the candle behind, clap down his tail close to his tuel, and drawing it up between his legs, hold it with your hand hardly and constantly for the space of an hour or more, in which time the candle will dissolve in the horse's body, and so separate and break his ordure, and upon letting loose your hand he will presently dung. This you may do in every case of extremity, but not otherwise ; and believe it, you will find this the most excellent remedy of all other, and there is no glister can work with greater efficacy, or more wholesomeness.

Of the danger of laxativeness in a horse, and how to remedy it.

There is another accident which attends the sickness of horses, and this is quite contrary to that before rehearsed, and it is called laxativeness or looseness of the body, which is expressed by a vehement and violent scowring. This, if at any time it shall happen, you must at first note the violence thereof, and the continuance thereof. The violence is known by the thinness or sharpness, and the often and speedy voiding of the excrements : The continuance is known by the unchangeableness of the infirmity, and by

the process and long continuance of time, contrary to all natural and wholesome custom; for you are to observe, that a horse may have a scowring for a day, or a little more, and this is not unwholesome, but not natural and good; and if after it stay of itself, then this worketh no evil effect; but if it continue longer, and bring the horse into any extraordinary weakness of body, then seek to stop it thus: Take a quart of milk, putting thereto a good spoonful or two of bean-flour, and as much bole-armoniac, finely beat to powder, boil all together till the milk thicken, and then being made lukewarm, give the horse it with a horn: and doing thus a morning or two, no doubt it will bind the horse; which if it doth not, you must take a quart of red-wine, and put too a handful of the herb shepherd's-purse, and half as much tanner's bark, and boil all very well together, till the herb and bark be soft, then strain it, and add to it of the powder of cinnamon, and being made lukewarm, give the horse it to drink with a horn; and this do, two or three mornings, if need require.

Means to help and preserve horses from inward diseases.

There are four ways and means to keep horses from inward diseases, viz. purging,

sweating, bleeding, and vomiting; whereof in order, *first*, of purging, which may be said to be twofold, outward and inward. The time of purging or cleansing the horse must be presently after the taking him from grass into the stable, which should be at or before the feast of St. Bartholomew, by reason of the great moisture and cold that then happeneth, and to be taken up very gently, for fear of over-heating him, lest his humours should thereby be dissolved by the veins and arteries into every part of the body. And that every horse at such times are full of humours, appears in the best spirited horses, if you then perceive their actions, how heavily they perform them at such times. The manner of purging and clearing the outward parts of the body should be thus: *First*, Shave his ears, and a little place behind, for the head-stall to lye flat and even; then take soap, and anoint his head and jaws therewith; and then take warm buck-lye, and wash and cleanse the same in every part, as clean as possible, from all sweat or scurf, and presently rub his head and every part with clean linnen-cloths, and after with a woollen-cloth very dry; then put thereon a double hood or biggin, made on purpose to keep all the parts of his head very warm. If it be a fair warm day, in the sun, in like manner wash, purge, and cleanse all his body, and every part thereof, especially

his mane, tail, and cods; then rub him and clear him very dry; cloath him and stuff him very warm, and give him plenty of sweet and clean litter; then anooint all his hoofs (having first washed and made them dry) with this ointment. Take of turpentine and sheep's-suet, half a pound of unwrought-wax, a quarter of allum, falled-oil half a pint, tar a quarter of a pint, boil them all together until they are well incorporated; keep it in a pot, and every day (his feet being clean) anooint his hoofs therewith; neither let him go to grass (if he be a horse of worth) above one month in the year.

THE

Complete VERMINE-KILLER.

A whip or spring-trap for the fox.

THERE is a string tyed unto the end of some pole set fast in the ground; unto the said string is made fast a small short stick, with a nick in the lower end thereof, made thin on the upper side, there the pole is bound down with it unto another stick set fast in the ground with a nick also under; then join both the nicks together as lightly as you can, and open the end of your string; set it in some muck, or where you think good. When any fox or other thing do pluck the said upper-string aside, then the nick slips by, and the pole starts, and so holds him up. There is yearly killed by foxes, in this kingdom, as many do judge, one thousand lambs, two thousand poultry, four thousand couple of rabbits, besides young fawns in many parks and forests.

How to kill weasles.

• Take sal-armonic and wheat-flour, mix-

ed into a paste with honey, and throw it into such places where weasels usually come; they will greedily eat it, and it will quickly kill them.

To prevent weasles, from sucking of eggs.

Take rue, and lay it about the places where the hens lay, and the weasles will not come near them.

To drive weasles away.

You must catch a hedge-weasle alive, and cut out his stones, and cut his tail short, so let him run, and all the other, be they never so many, will run away to other places.

How to gather together all the rats and mice into one place in a house or barn, and to kill them.

Take a brass or copper pot, as big as you can get, and fill it half full of the dregs of oil, and set it in the most convenient place of the house about the middle, and all the rats and mice will make their appearance, as if it were an assembly or an army of them, and you may then strew about the place pot-ashes, and it kills them all.

How to make rats and mice blind.

Take tithimalum beaten to powder, sift it

through a fine sieve, then mix it with a like quantity of wheat-flour, then put to it a sufficient quantity of metheglin, to make it into a stiff paste, and lay it in the usual places where the rats and mice come, and in a short time after they have eat it you shall see the effects, for they will become beetle-blind.

And thus much I think may be sufficient for these vermine, insects, and raveners that infect the house, field, park, and barn.

To drive adders and snakes out of gardens.

Plant in several places of the garden wormwood, and they will not frequent the garden.

How to touch and handle snakes and adders, without harm.

Wash your hands with the juice of radishes, and you may freely touch them without danger; or take in your hand the herb *siddretum*, and the snake or adder will not hurt you.

How to kill caterpillars.

Take ox piss and lees of oil, and boil them together, it kills the caterpillar infallibly, if you cast it upon the trees or bushes where they are.

To gather together and kill frogs.

Take ox, sheep, or goat's gaul, and bruise it by the water-side, and the frogs will gather to it, and so will quickly die.

To kill bugs.

Take the gall of an ox, and mix it with vinegar, and rub the cracks and joints of the bedstead with it, and all the bugs will suddenly die; or take a quantity of brimstone, beat it to a powder, then mix the powder with old oil, and use it as before.

How to kill fleas.

Take soap-lees, and boil two or three onions in it, let it cool, then sprinkle the room with it, and it kills the fleas. Or this, take mustard-seed, and boil it with the herb daphnes in water, and sprinkle the room with it.

How to kill lice.

Take hogs-lard, quicksilver and sage, as much of each as is needful, and mix them together to a salve, and anoint the afflicted part.

T

How to kill knits and lice in the head.

Take three ounces of oil of olives, one ounce of wax, three drams of stavoface, and as much quicksilver, of these make a salve, and anoint the head all over, which certainly kill the knits and lice.

How to kill crab-lice.

Take a roasted apple, and take the skin and core from it, and beat it in a mortar, with as much quicksilver as will make it into an ointment, and therewith drefs the afflicted part.

How to gather moles together to one place.

Take a living mole, and put her in an earthen pot, stop it close, and make a fire in the place where you would gather the moles together, and set the pot on the fire, and immediately all the moles will gather to the pot, hearing the mole in the pot cry.

How to kill moles.

Take an earthen jug or pot, that hath a full body, and narrow neck, and put brimstone, cedar-wood, bees-wax, and rosin, cut into small pieces, mix them together, then stop the mole-holes that are near, with the

earth that the moles have cast out, all but one, and into the hole that is open put the neck of the earthen pot, after the combustible matter is set on fire, so that the smoke of the pot may enter into the earth where the mole passeth, and they will immediately be choaked.

To kill pismires.

Take the roots of wild cucumbers, and set them on fire where the pismires are, and the smoke will kill them. Or take cyrenicum and melt it in oil, and pour it on the pismire-banks, and it will kill them.

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